

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Applicant : Lynn Hambright et al.

Serial No. : 10/005,137

Filed : December 5, 2001

For : System and User Interface for Use in Billing for Services and Goods

Examiner : Dilek B. Cobanoglu

Art Unit : 3626

APPEAL BRIEF

May It Please The Honorable Board:

Appellants appeal the Final Rejection dated August 22, 2007 of claims 1-27 of the above-identified application. The fee of five hundred and ten dollars (\$510.00) for filing this Brief and any associated extension fee is to be charged to Deposit Account No. 19-2179. Enclosed is a single copy of this Brief.

Please charge any additional fee or credit any overpayment to the above-identified Deposit Account.

Appellants do not request an oral hearing.

I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/005,137 is the Assignee of record:

Siemens Medical Solutions Health Services Corporation

51 Valley Stream Parkway

Malvern, PA 19355-1406

which merged into Siemens Medical Solutions USA Inc. on 1 January 2007

II. RELATED APPEALS AND INTERFERENCES

There are currently, and have been, no related Appeals or Interferences regarding Application Serial No. 10/005,137.

III. STATUS OF THE CLAIMS

Claims 1 - 27 are rejected and the rejection of claims 1 - 27 are appealed.

IV. STATUS OF AMENDMENTS

All amendments were entered and are reflected in the claims included in Appendix I.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 provides a method for determining payment for provision of multiple different services based on predetermined reimbursement rules (page 1, lines 12-15 and page 2, lines 11-12). A record repository (page 12, lines 11-13) is employed for linking a plurality of different encounters (page 12, lines 14-19 and page 13, lines 9-13) and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of at least a week (page 3, lines 25-33; page 15, "Participating Provider" and page 17, "Service"). A first record identifying a particular service provided to a specific patient is identified (page 11, lines 33-35 and Figure 5, reference nos. 17, 19 and 21). In response to receiving the first record, the record repository is automatically searched for a record indicating at least one other service provided to the specific patient (page 13, lines 14-16 and Figure 7). An item identifying the particular service is automatically grouped together with an item identifying the at least one other service provided to the specific patient based on predetermined service record allocation rules (page 2, lines 14-16; page 2, lines 19-22; page 4, lines 8-15; page 4, lines 22-24; page 7, lines 27-29 and Figure 2, reference no. 213). A reimbursement record identifying grouped items is automatically created (page 8, lines 13-15; page 8, lines 25-28 and Figure 2, reference no. 217). A reimbursement amount is calculated for the particular service and the at least one other service

provided to the specific patient based on a reimbursement contract determining service grouping affects reimbursement amount (page 2, lines 16-18; page 9, lines 16-17; page 10, lines 24-31; page 12, lines 20-28 and Figure 1, reference nos. 15 and 20).

Dependent claim 3 includes the features of independent claim 1, along with the feature that the different treatment services include an outpatient service and an inpatient service (page 8, lines 5-6 and Figure 6).

Dependent claim 4 includes the features of independent claim 1, along with the additional feature that the record repository links a plurality of different encounters of a plurality of different patients (page 3, lines 29-33). In response to receiving the first record, the record repository is automatically searched for a record indicating at least one other service provided to the specific patient and a different patient (page 13, lines 14-16 and Figure 7). An item identifying the particular service is automatically grouped together with an item identifying the at least one other service in response to identifying linked records of the specific patient and the different patient (page 2, lines 14-16; page 2, lines 19-22; page 4, lines 8-15; page 4, lines 22-24; page 7, lines 27-29 and Figure 2, reference no. 213). The predetermined service record allocation rules include at least one of, rules determining whether the provided service as well as the other service qualify for reimbursement under at least one reimbursement contract, and rules in a reimbursement contract (page 4, lines 15-18).

Dependent claim 5 includes the features of independent claim 1, along with the additional feature that the reimbursement contract includes a healthcare policy covering the specific patient. Data representing the reimbursement contract to identify rules to be used in grouping services for reimbursement is automatically analyzed and identified rules are automatically applied in grouping the item identifying the particular service together with the item identifying the at least one other service (page 2, lines 19-22).

Independent claim 7 provides a user interface supporting a method for determining payment for provision of multiple different services based on predetermined reimbursement rules (page 1, lines 12-15 and page 2, lines 11-12). A record repository (page 12, lines 11-13) is employed for linking a plurality of different encounters (page 12, lines 14-19 and page 13, lines 9-13) and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week (page 3, lines 25-33; page 15, "Participating Provider" and page 17, "Service).

A first record identifying a particular service provided to a specific patient is identified (page 11, lines 33-35 and Figure 5, reference nos. 17, 19 and 21). In response to receiving the first record, the record repository is automatically searched for a record indicating at least one other service provided to the specific patient (page 13, lines 14-16 and Figure 7). A first user selectable menu icon is generated for initiating display of a reimbursement record (page 8, lines 9-10 and Figure 3, reference no 305). The reimbursement record shows data indicating automatically grouped items including an item identifying the particular service provided to the specific patient together with an item identifying the at least one other service provided to the specific patient based on predetermined service record allocation rules (page 2, lines 14-16; page 2, lines 19-22; page 4, lines 8-15; page 4, lines 22-24; page 7, lines 27-29; page 8, lines 13-15; page 8, lines 25-28 and Figure 2, reference nos. 217 and 218). The reimbursement amounts for the identified provided service and the other service provided to the specific patient based on a reimbursement contract are automatically calculated (page 2, lines 16-18; page 9, lines 16-17; page 10, lines 24-31; page 12, lines 20-28 and Figure 1, reference nos. 15 and 20).

Independent claim 9 provides a method for use in billing for provision of multiple different services based on predetermined reimbursement rules (page 1, lines 12-15 and page 2, lines 11-12). A record repository (page 12, lines 11-13) is employed for linking a plurality of different encounters (page 12, lines 14-19 and page 13, lines 9-13) and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week (page 3, lines 25-33; page 15, "Participating Provider" and page 17, "Service). A first record identifying a particular service provided to an entity is received (page 11, lines 33-35 and Figure 5, reference nos. 17, 19 and 21). Predetermined allocation rules for providing a reimbursement record indicating a group of services to be billed together on a single bill are automatically applied (page 2, lines 14-16). The group of services has been provided to the entity, by, in response to receiving the first record. The record repository for a record indicating at least one other service provided to the specific entity is automatically searched and linked to the particular service (page 13, lines 14-16 and Figure 7). The reimbursement record is updated to incorporate a record item representing the at least one other service (page 11, lines 6-10). A reimbursement amount is calculated for the particular service based on predetermined reimbursement rules (page 2, lines 16-18; page 9, lines 16-17; page 10, lines 24-31; page 12, lines 20-28 and Figure 1, reference nos. 15 and 20). A bill including the group of services including the particular service and the at least one other service is prepared for communication to a payer (page 6, lines 32-35).

Dependent claim 16 includes the features of independent claim 9, along with the additional feature that the specific entity includes at least one of, a patient, a company, an individual person and a group of people including the step of searching other services also provided to the specific entity (page 3, lines 25-29).

Independent claim 17 provides a method for determining payment for provision of multiple different services based on predetermined reimbursement rules (page 1, lines 12-15 and page 2, lines 11-12). A record repository is employed for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week (page 3, lines 25-33; page 15, "Participating Provider" and page 17, "Service"). A first record identifying a particular service provided to a specific patient is received (page 11, lines 33-35 and Figure 5, reference nos. 17, 19 and 21). In response to receiving the first record, the record repository is automatically searched for a record of an additional service provided to the specific patient (page 13, lines 14-16 and Figure 7). It is automatically determined whether the particular service as well as the additional service provided to the specific patient qualifies for reimbursement under a single reimbursement contract (page 7, lines 30-32). A record is automatically created indicating the particular service and additional service provided to the specific patient qualify for reimbursement under a single reimbursement contract (page 8, lines 13-15; page 8, lines 25-28 and Figure 2, reference no. 217). A reimbursement amount is calculated for the particular service and additional service provided to the specific patient based on the single reimbursement contract (page 2, lines 16-18; page 9, lines 16-17; page 10, lines 24-31; page 12, lines 20-28 and Figure 1, reference nos. 15 and 20). A reimbursement amount is automatically calculated, in response to receiving further records identifying corresponding further services provided to the specific patient for individual records of the further records, one record at a time, in response to automatically determining the further services are to be grouped with the particular service for reimbursement under the single reimbursement contract (page 2, lines 16-18; page 9, lines 16-17; page 10, lines 24-31; page 12, lines 20-28 and Figure 1, reference nos. 15 and 20).

Dependent claim 18 includes the features of independent claim 17, along with the additional step of preparing a bill including the reimbursement amount for the particular service and additional service for communication to a payer (page 4, lines 8-15).

Independent claim 23 provides a method for determining payment for provision of multiple different services to a patient based on predetermined reimbursement rules (page 1, lines 12-15 and page 2, lines 11-12). A record repository (page 12, lines 11-13) is employed for linking a plurality of different encounters (page 12, lines 14-19 and page 13, lines 9-13) and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week (page 3, lines 25-33; page 15, "Participating Provider" and page 17, "Service"). A first record identifying a particular service provided to a specific patient is received (page 11, lines 33-35 and Figure 5, reference nos. 17, 19 and 21). In response to receiving the first record, the record repository is automatically searched for a record indicating at least one other service provided to the specific patient (page 13, lines 14-16 and Figure 7). It is automatically determined whether the particular service as well as the at least one other service provided to the specific patient qualify for grouped reimbursement under a single reimbursement contract (page 7, lines 30-32). The reimbursement record is updated to incorporate a record item representing the particular service in response to determination of the qualification (page 11, lines 6-10). A reimbursement amount is calculated for the particular service and at least one other service provided to the specific patient based on the single reimbursement contract (page 2, lines 16-18; page 9, lines 16-17; page 10, lines 24-31; page 12, lines 20-28 and Figure 1, reference nos. 15 and 20).

Dependent claim 25 includes the features of independent claim 23, along with the additional feature that the reimbursement record indicates services provided to the patient within a period encompassing at least one of, a plurality of weeks and a plurality of months, and wherein the updating step includes updating the reimbursement record to incorporate the record item representing the particular service in response to determination the particular service was provided within the specific period (page 3, lines 25-33; page 15, "Participating Provider" and page 17, "Service").

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-27 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 1-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boyer et al., hereinafter Boyer (U.S. Patent No. 6,208,973 B1) in view of Hunt et al., hereinafter Hunt (U.S. Patent No. 5,933,809).

VII. ARGUMENT

Applicants respectfully submit claims 1-27 are fully supported by the specification and comply with the written description requirement. Therefore, claims 1-27 are allowable over 35 U.S.C. § 112, first paragraph. Additionally, Boyer, when in combination with Hunt, does not make the present claimed invention unpatentable. Thus, reversal of the Final Rejection (hereinafter termed "rejection") of claims 1-27 under 35 U.S.C. § 112, first paragraph and 103(a) is respectfully requested.

Rejection of claims 1-27 under 35 U.S.C. § 112, first paragraph

Reversal of the rejection of claims 1-27 under 35 U.S.C. § 112, first paragraph as falling to comply with the written description requirement is respectfully requested because the rejection makes crucial errors. The rejection erroneously states that claims 1-27 are not supported by the specification.

Claims 1-27 have been rejected as not being supported by the original disclosure of the specification. Applicants respectfully disagree. Support for claims 1-27 can be found throughout the specification and more specifically on page 3, lines 29-33; page 5, lines 13-23 and page 7, lines 15-21. Page 3, lines 29-33 states that “[i]n the healthcare environment, the system enables a user to create **one or more consolidated records for one patient** (or multiple patients, e.g., mother/baby, or donor/transplant recipient) as necessary to support patient management functions and to allocate records of individual performed services to those consolidated records unconstrained by financial system requirements. Page 5, lines 13-23 further gives an example of a transplant patient having a plurality of at least three separate encounters with the healthcare system over a period of time exceeding ninety days being grouped into one reimbursement record. Specifically, the passage states that,

“[a]s an example, assume a contract states that a transplant is reimbursed at a case rate and includes hospital service costs and re-transplant surgery cost occurring during original transplant admission as well as hospital based care costs during a convalescent period of **ninety days following a transplant**. The contract also covers reimbursement for costs of routine outpatient evaluation procedures and testing during the ninety days following the transplant procedure as well as certain pre-admission testing. Typically this is performed during **at least three patient encounters** with the healthcare system, one for pre-admission testing, one for the transplant admission and one for each outpatient visit for testing or evaluation. However, the inventors have recognized that financially this is advantageously processed using one reimbursement record supporting the **reimbursement for the services** at the specified single contract rate.”

Page 7, lines 15-21 further describes that:

“[i]n step 205, application 10 searches for other records of additional services provided to the patient. The search is governed by criteria derived from an applicable health plan (having an associated reimbursement contract) that directs that records of services provided during an interval encompassing a specific date of a provided service are combined for reimbursement. The criteria in other embodiments may also direct, for example, that the search is performed for records of services associated with multiple patients (e.g., a mother and baby) or for records of particular types of services.”

Therefore, claims 1-27 are fully supported by the original specification. Additionally, these claims are also supported by the originally filed claims. Specifically, original claim 16 recites "[a] method according to claim 9, wherein said specific entity comprises at least one of (a) a patient, (b) a company, (c) an individual person and (d) a group of people and including the step of searching for other services also provided to said specific entity." Thus, the original specification and original filed claims fully support the claim language recited in claims 1, 7, 9, 17 and 23. Furthermore, claim 25 is also similarly allowable for the same reasons as the independent claims. As claims 2-6, 10-16, 18-22, 24, 26 and 27 are dependent on claims 1, 7, 9, 17 and 23, these claims are also allowable for the same reasons as the independent claims. Consequently, it is respectfully requested that the rejection of claims 1-27 under 35 U.S.C. § 112, first paragraph be withdrawn.

Rejection of claims 1-27 under 35 U.S.C. § 103(a) over Boyer (U.S. Patent No. 6,208,973 B1) in view of Hunt (U.S. Patent No. 5,933,809)

Reversal of the rejection of claims 1-27 under 35 U.S.C. § 103(a) as being unpatentable over Boyer (U.S. Patent No. 6,208,973 B1) in view of Hunt (U.S. Patent No. 5,933,809) is respectfully requested because the rejection makes crucial errors in interpreting the cited reference. The rejection erroneously states that claims 1-27 are made unpatentable over Boyer in view of Hunt.

Overview of the Cited References

Boyer describes a point of service third party adjudicated payment system and method which provides for the creation of an adjudicated settlement transaction at a point of service which designates the portion of the service to be paid by the third party payor and the portion to be paid by the customer. The system includes a point of service terminal which accepts a payment system access card, such as a credit card, debit card, or purchase card, for payment for a purchase of a service and/or product by a customer, where at least part of the purchase is reimbursable by a third party payor. The point of service terminal creates a purchase transaction which is adjudicated by an adjudication engine substantially in real-time (at the time of service or in a purchase transaction processing batch) to determine a first portion of the purchase which is to be paid by the third party payor and a second portion of the purchase which is to be paid by the customer. An adjudicated settlement transaction is returned to the point of service terminal designating at least the first portion and the second portion for payment. The payment system access card provides access to a payment system which transfers funds in accordance with the adjudicated settlement transaction whereby the third party payor is debited by the first portion

and the point of service provider is paid the first portion and a payment account accessible by the payment system access card is charged at least the second portion and the point of service provider is paid the second portion as with typical payment card transactions (*see Abstract*).

Hunt describes computer-coded software instructions capable of being executed by a conventional computer microprocessor to perform information processing on pre-existing medical billing record information, preferably consisting of hospital or individual doctor Medicare billing records. The software contains at least one set of instructions for receiving, converting, sorting and storing input information from the pre-existing medical billing records into a form suitable for processing. The software contains at least one set of instructions for processing the input medical billing record information, preferably to identify potential Medicare “72 hour billing rule” violations. This processing is preferably performed by comparing each input medical billing record containing dates of medical inpatient admission and discharge to each input medical billing record containing a date of medical outpatient service. The inpatient and outpatient billing records are first compared to determine if they contain matching patient identification codes to identify all the records originating from the same patient. If matching patient identification codes are found the inpatient and outpatient billing records are further compared to determine if the date of outpatient service fell within a pre-selected time period, preferably 72 hours, prior to the date of inpatient admission. If so, the matching inpatient and outpatient billing records are distinguished and stored separately for further processing. If not, the matching inpatient and outpatient billing records are compared to determine if the date of outpatient service fell between the inpatient admission and discharge dates. If this is the case, the matching inpatient and outpatient billing records are again distinguished and stored separately for further processing. If not, the program proceeds to the next set of billing records to repeat the sequence (*see Abstract*).

CLAIM 1

Independent claim 1 provides a method for determining payment for provision of multiple different services based on predetermined reimbursement rules. A record repository is employed for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of at least a week. A first record identifying a particular service provided to a specific patient is identified. In response to receiving the first record, the record repository is automatically searched for a record indicating at least one other service provided to the specific patient. An item identifying the particular service is

automatically grouped together with an item identifying the at least one other service provided to the specific patient based on predetermined service record allocation rules. A reimbursement record identifying grouped items is automatically created. A reimbursement amount is calculated for the particular service and the at least one other service provided to the specific patient based on a reimbursement contract determining service grouping affects reimbursement amount. Boyer and Hunt, when taken alone or in combination, neither disclose nor suggest these features.

The present claimed invention “group[s] records of services provided to a specific patient and provid[es] a consolidated reimbursement claim to a payer” (specification, page 2, lines 31-32). The claimed arrangement advantageously “recognize[s] that a problem exists in having financial system functions dependent on both administrative and operational (e.g., clinical) system requirements ... [and] The disclosed system addresses this problem by advantageously separating financial system function from administrative and clinical system requirements and constraints” (page 3, lines 33-37). “The rule-based system efficiently groups services for...one or more encounters...cases or visits into one account for joint reimbursement” (page 4, lines 31-33). Moreover,

“As an example, assume a contract states that a transplant is reimbursed at a case rate and includes hospital service costs and re-transplant surgery costs...hospital based care costs during a convalescent period of ninety days following transplant...routine outpatient evaluation procedures and testing...as well as certain pre-admission testing. Typically this is performed during at lease three patient encounters with the healthcare system, one for pre-admission testing, one for the transplant admission and one for each outpatient visit for testing or evaluation. However, the inventors [of the present claimed invention] have recognized that financially this is advantageously processed using one reimbursement record supporting the reimbursement for the services at the specified single contract rate” (page 5, lines 13-23).

To the contrary, Boyer describes a “point of service” environment, “for providing adjudicated third party payment **at the point of service**” (col. 1, lines 6-8). In Boyer, a patient may receive several services and those services can feasibly be adjudicated and billed to the payer at the point of service, while the patient is still present. Boyer describes that

“an adjudicated settlement transaction at a point of service which designates the portion of the service to be paid by the third party payor and the portion to be paid by the customer...the point of service terminal creates a purchase transaction which is adjudicated by an adjudication engine substantially in **real-time** (at the time of service or

in a purchase transaction processing batch) to determine a first portion of the purchase which is to be paid by the third party payor and a second portion of the purchase which is to be paid by the customer” (col. 3, lines 12-27).

Boyer further describes that

“While it is desired that the adjudication take place virtually instantaneously so that payment may be completely settled at the point of service at the time of service, ‘real-time’ as used herein is also intended to permit ‘batch’ processing and settlement of the claims processed by the service provider. For example, a healthcare administrative office may settle all of its claims for a given day overnight by batch processing the adjudicated settlement transactions received that day. In such a case, the adjudicated settlement transactions submitted that day may not actually be paid for a day or two” (col. 5, line 63-col. 6, line 6).

Thus, Boyer is merely concerned with the point of service which is used for billing while the patient is still at the medical facility. This is wholly unlike the present claimed invention which recites “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week.”

The present claimed invention advantageously recognizes that there are times when multiple bills received from multiple treatment facilities spanning a large time period can be combined into a single bill (*see* specification, page 5, lines 13-23). For example, during a complex surgery such as a transplant, a pre-admission test, transplant surgery and follow-up test can be combined into a single record (page 6, lines 7-11). Thus, unlike Boyer, the present claimed invention includes “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving different treatment services at different healthcare provider facilities **on different occasions separated by a time period of up to at least a week**” and “automatically search[es] said record repository for a record indicating at least one other service provided to said specific patient” as recited in claim 1 of the present invention. The claimed system automatically groups the items together into a single reimbursement record and calculates the amount for the related services. Boyer neither discloses nor suggests these features.

In contrast, Boyer is concerned with a more basic “point of service” reimbursement system for services provided that same day. Specifically, Boyer describe an instantaneous point of care reimbursement system that bundles charges for services performed that day at that specific service location. Thus, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with encounters during a **short time period** (one day) and the present claimed invention is concerned with automatically grouping encounters over an extended period (e.g., spanning weeks and months) to encompass treatments that are associated with each other. Additionally, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with bundling records from a **single treatment facility**. This is wholly unlike the claimed arrangement which groups services into a reimbursement record that originates from a **plurality of different treatment facilities**. Boyer (with Hunt) does not make the present claimed invention unpatentable, as Boyer is concerned with a relatively simple system that combines records from a single service facility at the point of care. Boyer is a point of care system. This is fundamentally different from the present claimed invention which supports a complex sophisticated system that combines records from multiple patients, multiple encounters and multiple facilities. Specifically, the claimed system supports a healthcare enterprise that may include multiple hospitals, emergency rooms, clinics, same day surgery centers, specialty centers (like lab, radiology, MRI, dialysis, etc.) physician offices, etc., that provide the full spectrum of health services to patients that may have multiple third party insurance policies, each covering some different portion of services provided at one of the respective facilities. The claimed system enables recording of the various inpatient and outpatient services for a given patient at different facilities over an extended period. The claimed system automatically determines how to organize, bill and calculate expected payment from multiple sources via their user-definable rules.

The Office Action on page 4 (and in the “Response to Arguments” section) cites col. 8, lines 7-67, col. 11, lines 19-34 and figure 6 of Boyer as being relevant to the present claimed invention. Applicants respectfully disagree. The first cited passage mainly describes an

“adjudication engine 22 utilized in the system of FIG. 1 in the healthcare environment ... at the center of the adjudication engine 22 resides a rules processor 30 whose sole purpose is to adjudicate and price healthcare transactions that are submitted by a healthcare provider 12 ... The rules processor 30 performs two primary tasks: the first is to decide whether a healthcare transaction is reimbursable and the second is to price the amount by which the healthcare provider 12 is to be reimbursed based on the healthcare transaction or claim received from the Clinical Pathways Database 34. To accomplish

these tasks the rules processor 30 needs to get information from the following databases: Policy Database 32-Information pertaining to the patient's coverage is defined in this database ... Clinical Pathways Database 34-Information pertaining to the current healthcare transaction (HCT), links to previous HCTs (the clinical pathway), and the state of each HCT as it exists in the pathway ... Healthcare History Database 36-Information pertaining to the patient's healthcare history is stored in this database" (col. 8, lines 8-57).

Although the cited passage of Boyer describes deciding whether a healthcare transaction is reimbursable and calculating the amount of money a healthcare provider is to be reimbursement, Boyer does not disclose or suggest "employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" as recited in claim 1 of the present invention. Moreover, the second cited passage of Boyer indicates that

"the Internet bank 16 sends the cardholder a unified credit card and explanation of benefits (EOB) statement at the end of the current credit cycle. FIGS. 5 and 6 together illustrate a credit card statement (FIG. 5) and an explanation of benefits (EOB) statement (FIG. 6) for a cobranded healthcare/credit card account ... the credit card statement is conventional except that healthcare transactions are separated out and explained in an EOB statement for each family member covered by the healthcare policy and credit card. In this fashion, the cardholder obtains a monthly statement which neatly ties medical transactions to their related credit card transactions, thus providing a complete record of services performed which can readily be maintained as a healthcare record for the patient and a record of payment for federal income tax purposes" (col. 11, lines 19-34).

Thus, in Boyer, a cobranded healthcare/payment card is issued to a patient and the Internet bank debits the cardholder's credit account against healthcare provider's payable via a credit card network (*see* fig. 3, reference nos. 100 and 104 of Boyer). After payment has been provided, the Internet bank sends the cardholder a unified credit card and EOB statement. This is further seen in cited fig. 6 of Boyer, which shows a summary of all activities after payment has been submitted. However, the statement described in Boyer is wholly unlike the present claimed invention which employs "a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" in order to calculate "a reimbursement amount for said particular service and said at least one other service provided to said specific patient based on a reimbursement contract determining services grouping affects reimbursement amount" as recited in claim 1 of the

present invention. Boyer merely describes a payment card system that can only be used in a point of service environment (i.e., a service provided to a patient can be successfully adjudicated at the point of service so that appropriate billing can be provided). Additionally, as seen in fig. 6 of Boyer, each service fee due for a single visit is paid independently of another visit. Nowhere in the cited passages or elsewhere in Boyer is there any mention or suggestion of “receiving different services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week,” or the ability to search among such separate encounters of services, or the ability to search among separate encounters for different patients who have to be billed on the same claim (i.e., as in a transplant donor/recipient or mother/baby situation). Rather, Boyer merely deals with point of service treatment, which occurs on one occasion, and adjudicates a claim while a patient is at a healthcare provider who is rendering the service. Boyer does not recognize the advantages of the present claimed invention, such as a complex reimbursement system, where services occur over a period of time and at various treatment settings and grouping these treatments into reimbursement records. Whereas Boyer provides a point of service treatment, the present claimed invention receives “different treatment services at different healthcare provider facilities on different occasions separated by a time period of at least a week” as recited in claim 1 of the present invention. Therefore, nowhere in the cited passages or elsewhere in Boyer is there mention or suggestion of the features of the present claimed invention.

Furthermore, in the “Response to Arguments” section, it is argued that “the rules processor decides whether a healthcare transaction is reimbursable and price the amount of reimbursement based on the healthcare transaction or claim received from the Clinical Pathways Database 34, and explanation of benefits can be seen in figure 6.” Applicants respectfully submit that figure 6 merely shows a summary of individual point of service visits at different providers that have been individually adjudicated and paid (i.e., a summary of individual billing records is shown for Samantha Smith and John Smith). Boyer does not show or suggest visits at different providers that have been **linked** and paid as one claim, as in the present claimed invention. The claim total shown in figure 6 is calculated individually for each day. Although the claim totals are shown for Samantha Smith and John Smith, these claims are **separately** adjudicated, grouped and billed. Merely summarizing individual point of service visits adjudicated and paid individually by the same payment access card, as in Boyer, is wholly unlike the present claimed invention which employs “a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a

time period of up to at least a week” as recited in claim 1 of the present invention. Boyer further shows that the EOB statements come from an Internet bank and not from the software handling the service records (*see* col. 11, lines 19-34). Therefore, as the services in Boyer are individually adjudicated and paid by point of service, Boyer neither discloses nor suggests “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 1 of the present invention.

In addition, Boyer is concerned with substantially instantaneous bill processing, or overnight claim batch processing, for example. This is wholly unlike the present claimed invention, which automatically searches for, and groups records in response to the receipt of a first record and searches for any additional record of services provide to the specific patient. Therefore, it is respectfully submitted that Boyer neither disclose nor suggest “in response to receiving said first record, **automatically** searching said record repository for a record indicating at least one other service provided to said specific patient” as recited in claim 1 of the present invention.

As described above, Boyer is a point of service system that compiles records for patients that have occurred on a specific date at a specific facility. However, Boyer is unable to operate in a manner equivalent to the present claimed system. Specifically, the claimed system is concerned with “employing a record repository for **linking a plurality of different encounters**” that have occurred at different facilities on different occasions. Once linked in the repository, the claim system advantageously searches the records in the repository **automatically** to locate any other record of service provided to the specific patient on a different occasion. Thus, the claimed arrangement enables **automatic** grouping of related services spanning extended time periods and different facilities into a single reimbursement claim.

The Office Action on page 5 correctly states that “Boyer fails to expressly teach in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific patient.” However, even combining the system of Boyer with the system of Hunt would not make the present claimed invention unpatentable.

Hunt “relates to computer software designed for processing medical billing record information received from a pre-existing database, and in particular to processing medical billing record information to ensure compliance with the ‘72 hour billing rule’ for submitted Medicare outpatient claims” (col. 1, lines 6-11). In Hunt, “computer-coded software instructions [are] capable of being executed by a conventional computer microprocessor to perform information processing in **pre-existing** medical billing record information” (col. 2, lines 47-50). Hunt describes that “[t]he software contains a set of instructions for updating the matching medical billing record information to determine if the inpatient admission was ‘medically related’ to the outpatient service, and to indicate the **payees** and amounts of **refunds** generated for erroneously billed outpatient service” (col. 3, lines 14-19). Thus, Hunt determines if the outpatient service was medically related to inpatient service and therefore can indicate amounts of refunds for erroneously billed outpatient service.

Hunt also describes that “[e]ach input billing record is sorted and stored only once such that each separate database on the processed medical billing record storage medium 4 contains a continuously up-to-date record of all input medical billing records processed by the software” (col. 5, lines 22-26). Furthermore, Hunt describes that “[t]he determination of whether reimbursement must be made for the distinguished outpatient claims will turn on whether the outpatient claim was ‘medically related’ to the inpatient stay ... This determination can be performed manually by claims processing personnel or automatically by the medical billing record processing software” (col. 7, lines 31-38). Therefore, Hunt merely determines whether the outpatient claim was medically related to the inpatient stay and automatically determines whether reimbursement must be made for the outpatient claim. The automatic determination is performed for **already created** (or pre-existing) separate inpatient and outpatient billing records. These outpatient and inpatient records are created independently of each other and Hunt merely determines whether the outpatient records are medically related to inpatient records, so that appropriate **refunds** can be provided for overpayments **already sent** and processed by the payer. However, nowhere in the cited passages or elsewhere in Hunt (and Boyer) is there any mention or suggestion of “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 1 of the present invention. Furthermore, Hunt (with Boyer) does not calculate “a reimbursement amount for said particular service and said at least one other service provided to said specific patient based on a reimbursement contract determining service grouping affects reimbursement amount” as recited in claim 1 of the present invention. Hunt

describes “[b]efore processing the medical billing record data to determine if a potential violation of the Medicare ‘72 hour billing rule’ has occurred, the computer processor 1 reads all Medicare Remittance Advice (RA) billing record information from a pre-existing database contained on the input medical billing record storage medium 3 for conversion into a format suitable for use by the processing software” (col. 4, lines 51-57). Hunt also describes that “[t]he payment amount segment contains a separate hexadecimal coded character in its last byte for separate hexadecimal coded character in its last byte for determining whether a payment was received by the medical service provider or refunded by the service provider to a receiving party” (col. 5, lines 43-47). Thus, Hunt merely uses a conversion program to turn billing record data into a certain format. However, Hunt cannot calculate a reimbursement amount, as disclosed in the present claimed invention. Rather, Hunt determines whether an overpayment has been made and initiates refund of the overpayment if necessary and uses a coded character to determine whether a payment was received or refunded by the medical service provider. Therefore, Hunt, when taken alone or in combination with Boyer, neither discloses nor suggests the features of the present claimed invention.

Even if the system of Boyer was combined with the system of Hunt, the combined system would not make the present claimed invention unpatentable. The combined system would be a point of service environment, where a patient would come in to a hospital/clinic and have several services performed on a single day. Those services would be adjudicated and billed to the payer while the patient is still at the hospital/clinic. After the billing and payment, the records of patient visits would be stored on a database. The record would be compared to see if an inpatient admission was “medically related” to an outpatient service. Refunds may be generated for erroneously billed outpatient services. However, the combined system of Boyer and Hunt would neither disclose nor suggest “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 1 of the present invention. The combined system would be directed towards a point of service environment, and therefore, is not concerned with “automatically grouping an item identifying said particular service together with an item identifying said at least one other service provided to said specific patient based on predetermined service record allocation rules” or “calculating a reimbursement amount for said particular service and said at least one other service provided to said specific patient based on a reimbursement contract determining service grouping affects reimbursement amount” as recited in claim 1 of the present invention. Unlike the present claimed invention,

the combined system cannot search among separate encounters of services provided “on different occasions separated by a time period of up to at least a week” because the combined system only calculates and bills based upon events occurring on a single day (at the point of service). Even though the combined system may compare an outpatient visit to see if it is “medically related” to an inpatient visit, this comparison is performed **after** billing and payment is settled. The combined system is wholly unlike the present claimed invention which links “a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week,” and automatically searches the “record repository for a record indicating at least one other service provided to said specific patient ... automatically group[s] an item identifying said particular service together with an item identifying said at least one other service provided to said specific patient based on predetermined service record allocation rules” and calculates “a reimbursement amount for said particular service and said at least one other service provided to said specific patient based on a reimbursement contract determining service grouping affects reimbursement amount” as recited in claim 1 of the present invention. Therefore, the combined system of Boyer and Hunt neither disclose nor suggest the features of the present claimed invention. Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

Dependent claims 2 and 6 are considered to be patentable based on their dependence on independent claim 1. Therefore, all arguments presented above with respect to claim 1 also apply to claims 2, and 6. Thus, withdrawal of the rejection of claims 2 and 6 under 35 U.S.C. 103(a) is further respectfully requested.

CLAIM 3

Claim 3 is dependent on claims 1 and 2 and is considered patentable for the reasons presented above with respect to claims 1 and 2. Claim 3 is also considered patentable because Boyer and Hunt fail to disclose or suggest that “said different treatment services comprise an outpatient service and an inpatient service” as recited in claim 3 of the present invention. The Office Action cites col. 6, lines 23-28, col. 11, lines 19-34 and figure 6 of Boyer as disclosing the present claimed features. Applicant respectfully disagrees. The present claimed invention, unlike Boyer, combines treatment services received at different locations. While Boyer describes that the system may be accessed from many different locations (*see* col. 6, lines 23-28), the system is concerned with a single specific location, the point of care, such that it combines the claims of that location on that day (*see* col. 6, lines 1-7). This is wholly unlike the present claimed

invention, which is concerned with combining records for a specific patient of different treatment services performed at different locations into a single reimbursement record. The cited sections of Boyer (and elsewhere) cite examples of different point of service entities and refer to a single instance of service at a single healthcare provider on a specific day. Additionally, the Boyer system “is accessed by a plurality of product/service providers ... In accordance with the invention, **each** such provider 12 has a point of service terminal which accepts a payment system access card the result of a patient’s interaction with the healthcare provider is a healthcare transaction **which generally includes a claim for payment**” (col. 6, lines 23-36). This is fundamentally different from the claimed system because Boyer merely describes a point of service environment and does not enable creating a reimbursement record for a specific patient which includes different services performed at different healthcare provider locations that were performed at different times over an extended period. Therefore, it is respectfully submitted that neither disclose nor suggest that “said different treatment services comprise an outpatient service and an inpatient service” as recited in claim 3 of the present invention.

In the “Response to Arguments” section, it is argued that Boyer in figure 6 shows a listing of inpatient and outpatient services. Applicants respectfully disagree. Nowhere in Boyer is there any mention or disclosure of inpatient services. Specifically, figure 6 shows point of service outpatient services only. Each separate claim total shown is for one date of service for outpatient services. For example, on 10/24/97, services provided were for an office visit and lab work. On 10/25/97, “out-patient services” were provided. On 11/8/97, services include office visit, lab work and x-ray. On 11/01/07 dental work was provided. On 11/10/97, an office visit was made for an ECG. These are all examples of outpatient visits, and nowhere in Boyer is there any suggestion of outpatient and **inpatient** services, as in the present claimed invention. Even if an inpatient service was provided for only one night, the charges would include a lot of services, including admission and discharge charges, room charges and many other higher amount charges than provided by Boyer. Additionally, the dentist, Dr. Morgenstern, D.D.S., cannot bill inpatient hospital services for the outpatient services provided, as shown in figure 6. Therefore, there is no mention or suggestion that “said different treatment services comprise an outpatient service and an **inpatient** service” as recited in claim 3 of the present invention. Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

CLAIM 4

Claim 4 is dependent on claim 1 and is considered patentable for the reasons presented above with respect to claim 1. Claim 4 is also considered patentable because Boyer with Hunt,

contrary to the assertion in the Office Action, neither discloses nor suggests the present claimed feature. The Office Action asserts that Boyer and Hunt disclose the principles of the present invention as embodied in claim 4. The present claimed invention automatically searches for records associated with multiple patients for particular types of service (such as mother and baby) (*see* specification, page 7, lines 19-21). In contrast, Boyer (with Hunt) is only concerned with the **records of a single patient** that occur at the specific facility. This is wholly unlike the present claimed invention, which is concerned with the **records of multiple patients** based on the predetermined allocation rules. Therefore, it is respectfully submitted that neither disclose nor suggest that “said record repository links a plurality of different encounters of a plurality of different patients” and “in response to receiving said first record **automatically** searching said record repository for a record indicating at least one other service provided to said specific patient and a different patient” as recited in claim 4 of the present claimed invention. Additionally, Boyer neither discloses nor suggests “**automatically** grouping an item identifying said particular service together with an item identifying said at least one other service in response to identifying linked records of said specific patient and said different patient” using the “record repository” linking “a plurality of different encounters and associated service records” as recited in claim 4.

Even if the system of Boyer was combined with the system of Hunt, the combination would not make the present claimed invention unpatentable. As argued with respect to claim 1, the combined system would be a point of service system used for adjudication of services performed. The billing would be provided in real-time, while the patient is still in the healthcare facility. After the billing/payment of services, a record of all services would be provided and a comparison would be made to see if an outpatient service is medically related to an inpatient service. If a refund is appropriate due to overbilling, it can be provided. However, nowhere in Boyer and Hunt, when taken alone or in combination, is there any mention or suggestion of linking services performed at different times, before reimbursement is provided, as in the present claimed invention. Therefore, Boyer and Hunt do not make the present claimed invention unpatentable. Consequently, withdrawal of the rejection of claim 4 is respectfully requested.

CLAIM 5

Claim 5 is dependent on claim 1 and is considered patentable for the reasons presented above with respect to claim 1. Claim 5 is also considered patentable because Boyer and Hunt neither disclose nor suggest that “said reimbursement contract comprises healthcare policy covering said specific patient” and “automatically analyzing data representing said

reimbursement contract to identify rules to be used in grouping services for reimbursement and automatically applying identified rules in grouping said item identifying said particular service together with said item identifying said at least one other service” as recited in claim 5 of the present invention. The cited section of Boyer (col. 8, lines 7-67) merely provides a system that determines whether a transaction is reimbursable and prices the amount by which the healthcare provider is to be reimbursed based on the healthcare transaction or claim. This is fundamentally different from the claimed invention because Boyer neither discloses nor suggests analyzing a patient specific healthcare reimbursement contract to create rules which are “automatically applied...in grouping” healthcare service items for a specific patient that were provided at different facilities at a different time. Unlike the claimed system, Boyer is merely concerned with grouping the daily claims at a particular point of service.

In the “Response to Arguments” section, it is argued that col. 8, lines 4-67 shows that a rules processor decides whether a healthcare transaction is reimbursable and then prices “the amount of the reimbursement in accordance with the rules of engagement set forth in Policy Database32.” Applicants respectfully disagree. Although the cited passage describes an adjudicated engine that can apply healthcare policy rules, the rules apply to a specific **individual** point of service visit for one specific patient. The adjudication engine in Boyer, however, cannot link “different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 1 of the present invention. Even combining the system of Boyer and Hunt would neither disclose nor suggest the features of the present claimed invention. Consequently, withdrawal of the rejection of claim 5 is respectfully requested.

CLAIM 7

Independent claim 7 provides a user interface supporting a method for determining payment for provision of multiple different services based on predetermined reimbursement rules. A record repository is employed for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week. A first record identifying a particular service provided to a specific patient is identified. In response to receiving the first record, the record repository is automatically searched for a record indicating at least one other service provided to the specific patient. A first user selectable menu icon is generated for initiating display of a reimbursement record. The reimbursement record shows data indicating automatically grouped items including an item

identifying the particular service provided to the specific patient together with an item identifying the at least one other service provided to the specific patient based on predetermined service record allocation rules. The reimbursement amounts for the identified provided service and the other service provided to the specific patient based on a reimbursement contract are automatically calculated. Boyer and Hunt, when taken alone or in combination, neither disclose nor suggest these features.

The present claimed invention “group[s] records of services provided to a specific patient and provid[es] a consolidated reimbursement claim to a payer” (specification, page 2, lines 31-32). The claimed arrangement advantageously “recognize[s] that a problem exists in having financial system functions dependent on both administrative and operational (e.g., clinical) system requirements ... [and] The disclosed system addresses this problem by advantageously separating financial system function from administrative and clinical system requirements ad constraints” (page 3, lines 33-37). “The rule-based system efficiently groups services for...one or more encounters...cases or visits into one account for joint reimbursement” (page 4, lines 31-33). Moreover,

“As an example, assume a contract states that a transplant is reimbursed at a case rate and includes hospital service costs and re-transplant surgery costs...hospital based care costs during a convalescent period of ninety days following transplant...routine outpatient evaluation procedures and testing...as well as certain pre-admission testing. Typically this is performed during at lease three patient encounters with the healthcare system, one for pre-admission testing, one for the transplant admission and one for each outpatient visit for testing or evaluation. However, the inventors [of the present claimed invention] have recognized that financially this is advantageously processed using one reimbursement record supporting the reimbursement for the services at the specified single contract rate” (page 5, lines 13-23).

To the contrary, Boyer describes a “point of service” environment, “for providing adjudicated third party payment **at the point of service**” (col. 1, lines 6-8). In Boyer, a patient may receive several services and those services can feasibly be adjudicated and billed to the payer at the point of service, while the patient is still present. Boyer describes that

“an adjudicated settlement transaction at a point of service which designates the portion of the service to be paid by the third party payor and the portion to be paid by the customer...the point of service terminal creates a purchase transaction which is adjudicated by an adjudication engine substantially in **real-time** (at the time of service or in a purchase transaction processing batch) to determine a first portion of the purchase

which is to be paid by the third party payor and a second portion of the purchase which is to be paid by the customer” (col. 3, lines 12-27).

Boyer further describes that

“While it is desired that the adjudication take place virtually instantaneously so that payment may be completely settles at the point of service at the time of service, ‘real-time’ as used herein is also intended to permit ‘batch’ processing and settlement of the claims processed by the service provider. For example, a healthcare administrative office may settle all of its claims for a given day overnight by batch processing the adjudicated settlement transactions received that day. In such a case, the adjudicated settlement transactions submitted that day may not actually be paid for a day or two” (col. 5, line 63-col. 6, line 6).

Thus, Boyer is merely concerned with the point of service which is used for billing while the patient is still at the medical facility. This is wholly unlike the present claimed invention which recites “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week.”

The present claimed invention advantageously recognizes that there are times when multiple bills received from multiple treatment facilities spanning a large time period can be combined into a single bill (*see* specification, page 5, lines 13-23). For example, during a complex surgery such as a transplant, a pre-admission test, transplant surgery and follow-up test can be combined into a single record (page 6, lines 7-11). Thus, unlike Boyer, the present claimed invention includes “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities **on different occasions separated by a time period of up to at least a week**” and “automatically searching said record repository for a record indicating at least one other service provided to said specific patient” as recited in claim 7 of the present invention. The claimed system automatically groups the items together into a single reimbursement record and calculates the amount for the related services. Boyer neither discloses nor suggests these features.

In contrast, Boyer is concerned with a more basic “point of service” reimbursement system for services provided that same day. Specifically, Boyer describe an instantaneous point

of care reimbursement system that bundles charges for services performed that day at that specific service location. Thus, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with encounters during a **short time period** (one day) and the present claimed invention is concerned with bundling encounters over an extended period (e.g., spanning weeks and months) to encompass treatments that are associated with each other. Additionally, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with bundling records from a **single treatment facility**. This is wholly unlike the claimed arrangement which groups services into a reimbursement record that originates from a **plurality of different treatment facilities**. Boyer (with Hunt) does not make the present claimed invention unpatentable, as Boyer is concerned with a relatively simple system that combines records from a single service facility at the point of care. Boyer is a point of care system. This is fundamentally different from the present claimed invention which supports a complex sophisticated system that combines records from multiple patients, multiple encounters and multiple facilities. Specifically, the claimed system supports a healthcare enterprise that may include multiple hospitals, emergency rooms, clinics, same day surgery centers, specialty centers (like lab, radiology, MRI, dialysis, etc.) physician offices, etc., that provide the full spectrum of health services to patients that may have multiple third party insurance policies, each covering some different portion of services provided at one of the respective facilities. The claimed system enables recording of the various inpatient and outpatient services for a given patient at different facilities over an extended period. The claimed system automatically determines how to organize, bill and calculate expected payment from multiple sources via their user-definable rules.

The Office Action on page 11 (and in the “Response to Arguments” section) cites col. 8, lines 7-67, col. 11, lines 19-34 and figure 6 of Boyer as being relevant to the present claimed invention. Applicants respectfully disagree. The first cited passage mainly describes an

“adjudication engine 22 utilized in the system of FIG. 1 in the healthcare environment ... at the center of the adjudication engine 22 resides a rules processor 30 whose sole purpose is to adjudicate and price healthcare transactions that are submitted by a healthcare provider 12 ... The rules processor 30 performs two primary tasks: the first is to decide whether a healthcare transaction is reimbursable and the second is to price the amount by which the healthcare provider 12 is to be reimbursed based on the healthcare transaction or claim received from the Clinical Pathways Database 34. To accomplish these tasks the rules processor 30 needs to get information from the following databases: Policy Database 32-Information pertaining to the patient’s coverage is defined in this database ... Clinical Pathways Database 34-Information pertaining to the current

healthcare transaction (HCT), links to previous HCTs (the clinical pathway), and the state of each HCT as it exists in the pathway ... Healthcare History Database 36-Information pertaining to the patient's healthcare history is stored in this database" (col. 8, lines 8-57).

Although the cited passage of Boyer describes deciding whether a healthcare transaction is reimbursable and calculating the amount of money a healthcare provider is to be reimbursement, Boyer does not disclose or suggest "employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" as recited in claim 7 of the present invention. Moreover, the second cited passage of Boyer mainly describes that

"the Internet bank 16 sends the cardholder a unified credit card and explanation of benefits (EOB) statement at the end of the current credit cycle. FIGS. 5 and 6 together illustrate a credit card statement (FIG. 5) and an explanation of benefits (EOB) statement (FIG. 6) for a cobranded healthcare/credit card account ... the credit card statement is conventional except that healthcare transactions are separated out and explained in an EOB statement for each family member covered by the healthcare policy and credit card. In this fashion, the cardholder obtains a monthly statement which neatly ties medical transactions to their related credit card transactions, thus providing a complete record of services performed which can readily be maintained as a healthcare record for the patient and a record of payment for federal income tax purposes" (col. 11, lines 19-34).

Thus, in Boyer, a cobranded healthcare/payment card is issued to a patient and the Internet bank debits the cardholder's credit account against healthcare provider's payable via a credit card network (*see* fig. 3, reference nos. 100 and 104 of Boyer). After payment has been provided, the Internet bank sends the cardholder a unified credit card and EOB statement. This is further seen in cited fig. 6 of Boyer, which shows a summary of all activities after payment has been submitted. However, the statement described in Boyer is wholly unlike the present claimed invention which employs "a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" in order to automatically calculate "reimbursement amounts for said identified provided service and said other service provided to said specific patient based on a reimbursement contract" as recited in claim 7 of the present invention. Rather, Boyer merely describes a payment card system that can only be used in a point of service environment (i.e., a service provided to a patient can be successfully adjudicated at the point of service so that appropriate billing can be provided). Additionally, as seen in fig. 6 of Boyer, each service fee

due for a single visit is paid independently of another other visit. Nowhere in the cited passages or elsewhere in Boyer is there any mention or suggestion “receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week,” or the ability to search among such separate encounters of services, or the ability to search among separate encounters for different patients who have to be billed on the same claim (i.e., as in a transplant donor/recipient or mother/baby situation). Rather, Boyer merely deals with point of service treatment, which occurs on one occasion, and adjudicates a claim while a patient is at a healthcare provider who is rendering the service. Boyer does not recognize the advantages of the present claimed invention, such as a complex reimbursement system, where services occur over a period of time and at various treatment settings and grouping these treatments into reimbursement records. Whereas Boyer provides a point of service treatment, the present claimed invention receives “different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 7 of the present invention. Therefore, nowhere in the cited passages or elsewhere in Boyer is there mention or suggestion of the features of the present claimed invention.

Furthermore, in the “Response to Arguments” section, it is argued that “the rules processor decides whether a healthcare transaction is reimbursable and price the amount of reimbursement based on the healthcare transaction or claim received from the Clinical Pathways Database 34, and explanation of benefits can be seen in figure 6.” Applicants respectfully submit that figure 6 merely shows a summary of individual point of service visits at different providers that have been individually adjudicated and paid (i.e., a summary of individual billing records is shown for Samantha Smith and John Smith). Boyer does not show or suggest visits at different providers that have been **linked** and paid as one claim, as in the present claimed invention. The claim total shown in figure 6 is calculated individually for each day. Although the claim totals are shown for Samantha Smith and John Smith, these claims are **separately** adjudicated, grouped and billed. Merely summarizing individual point of service visits adjudicated and paid individually by the same payment access card, as in Boyer, is wholly unlike the present claimed invention which employs “a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 7 of the present invention. Boyer further shows that the EOB statements come from an Internet bank and not from the software handling

the service records (*see* col. 11, lines 19-34). Therefore, as the services in Boyer are individually adjudicated and paid by point of service, Boyer neither discloses nor suggests “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 7 of the present invention.

In addition, Boyer is concerned with substantially instantaneous bill processing, or overnight claim batch processing, for example. This is wholly unlike the present claimed invention, which automatically searches for, and groups records in response to the receipt of a first record and searches for any additional record of services provide to the specific patient. Therefore, it is respectfully submitted that Boyer neither disclose nor suggest “in response to receiving said first record, **automatically** searching said record repository for a record indicating at least one other service provided to said specific patient” as recited in claim 7 of the present invention.

As described above, Boyer is a point of service system that compiles records for patients that have occurred on a specific date at a specific facility. However, Boyer is unable to operate in a manner equivalent to the present claimed system. Specifically, the claimed system is concerned with “employing a record repository for **linking a plurality of different encounters**” that have occurred at different facilities on different occasions. Once linked in the repository, the claim system advantageously searches the records in the repository **automatically** to locate any other record of service provided to the specific patient on a different occasion. Thus, the claimed arrangement enables **automatic** grouping of related services spanning extended time periods and different facilities into a single reimbursement claim.

The Office Action on page 11 correctly states that “Boyer fails to expressly teach in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific patient.” However, even combining the system of Boyer with the system of Hunt would not make the present claimed invention unpatentable.

Hunt “relates to computer software designed for processing medical billing record information received from a pre-existing database, and in particular to processing medical billing record information to ensure compliance with the ‘72 hour billing rule’ for submitted Medicare

outpatient claims” (col. 1, lines 6-11). In Hunt, “computer-coded software instructions [are] capable of being executed by a conventional computer microprocessor to perform information processing in **pre-existing** medical billing record information” (col. 2, lines 47-50). Hunt describes that “[t]he software contains a set of instructions for updating the matching medical billing record information to determine if the inpatient admission was ‘medically related’ to the outpatient service, and to indicate the **payees** and amounts of **refunds** generated for erroneously billed outpatient service” (col. 3, lines 14-19). Thus, Hunt determines if the outpatient service was medically related to inpatient service and therefore can indicate amounts of refunds for erroneously billed outpatient service.

Hunt also describes that “[e]ach input billing record is sorted and stored only once such that each separate database on the processed medical billing record storage medium 4 contains a continuously up-to-date record of all input medical billing records processed by the software” (col. 5, lines 22-26). Furthermore, Hunt describes that “[t]he determination of whether reimbursement must be made for the distinguished outpatient claims will turn on whether the outpatient claim was ‘medically related’ to the inpatient stay ... This determination can be performed manually by claims processing personnel or automatically by the medical billing record processing software” (col. 7, lines 31-38). Therefore, Hunt merely determines whether the outpatient claim was medically related to the inpatient stay and automatically determines whether reimbursement must be made for the outpatient claim. The automatic determination is performed for **already created** (or pre-existing) separate inpatient and outpatient billing records. These outpatient and inpatient records are created independently of each other and Hunt merely determines whether the outpatient records are medically related to inpatient records, so that appropriate refunds can be provided for overpayments already sent and processed by the payer. However, nowhere in the cited passages or elsewhere in Hunt (and Boyer) is there any mention or suggestion of “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 7 of the present invention. Furthermore, Hunt (with Boyer) does not calculate “reimbursement amounts for said identified provided service and said other service provided to said specific patient based on a reimbursement contract” as recited in claim 7 of the present invention. Hunt describes “[b]efore processing the medical billing record data to determine if a potential violation of the Medicare ‘72 hour billing rule’ has occurred, the computer processor 1 reads all Medicare Remittance Advice (RA) billing record information from a pre-existing database contained on the input medical billing record storage medium 3 for

conversion into a format suitable for use by the processing software” (col. 4, lines 51-57). Hunt also describes that “[t]he payment amount segment contains a separate hexadecimal coded character in its last byte for separate hexadecimal coded character in its last byte for determining whether a payment was received by the medical service provider or refunded by the service provider to a receiving party” (col. 5, lines 43-47). Thus, Hunt merely uses a conversion program to turn billing record data into a certain format. However, Hunt cannot calculate a reimbursement amount, as disclosed in the present claimed invention. Rather, Hunt can only determine whether a reimbursement should have been made for an overpayment and refunds the payment if necessary and uses a coded character to determine whether a payment was received or refunded by the medical service provider. Therefore, Hunt, when taken alone or in combination with Boyer, neither discloses nor suggests the features of the present claimed invention.

Even if the system of Boyer was combined with the system of Hunt, the combined system would not make the present claimed invention unpatentable. The combined system would be a point of service environment, where a patient would come in to a hospital/clinic and have several services performed on a single day. Those services would be adjudicated and billed to the payer while the patient is still at the hospital/clinic. After the billing and payment, the records of patient visits would be stored on a database. The record would be compared to see if an inpatient admission was “medically related” to an outpatient service. Refunds may be generated for erroneously billed outpatient services. However, the combined system of Boyer and Hunt would neither disclose nor suggest “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 7 of the present invention. The combined system would be directed towards a point of service environment, and therefore, is not concerned with “data indicating automatically grouped items including an item identifying said particular service provided to said specific patient together with an item identifying said at least one other service provided to said specific patient based on predetermined service record allocation rules” or “automatically calculating reimbursement amounts for said identified provided service and said other service provided to said specific patient based on a reimbursement contract” as recited in claim 7 of the present invention. Unlike the present claimed invention, the combined system cannot search among separate encounters of services provided “on different occasions separated by a time period of up to at least a week” because the combined system only calculates and bills based upon events

occurring on a single day (at the point of service). Even though the combined system may compare an outpatient visit to see if it is “medically related” to an inpatient visit, this comparison is performed after billing and payment is settled. The combined system is wholly unlike the present claimed invention which links “a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week,” then automatically searches the “record repository for a record indicating at least one other service provided to said specific patient ... automatically group[s] items including an item identifying said particular service provided to said specific patient together with an item identifying said at least one other service provided to said specific patient based on predetermined service record allocation rules” and automatically calculates “reimbursement amounts for said identified provided service and said other service provided to said specific patient based on a reimbursement contract” as recited in claim 7 of the present invention. Therefore, the combined system of Boyer and Hunt neither disclose nor suggest the features of the present claimed invention. Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

Dependent claim 8 is considered to be patentable based on its dependence on independent claim 7. Therefore, all arguments presented above with respect to claim 7 also apply to claim 8. Thus, withdrawal of the rejection of claim 8 under 35 U.S.C. 103(a) is further respectfully requested.

CLAIM 9

Independent claim 9 provides a method for use in billing for provision of multiple different services based on predetermined reimbursement rules. A record repository is employed for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week. A first record identifying a particular service provided to an entity is received. Predetermined allocation rules for providing a reimbursement record indicating a group of services to be billed together on a single bill are automatically applied. The group of services has been provided to the entity, by, in response to receiving the first record. The record repository for a record indicating at least one other service provided to the specific entity is automatically searched and linked to the particular service. The reimbursement record is updated to incorporate a record item representing the at least one other service. A reimbursement amount is calculated for the particular service based on

predetermined reimbursement rules. A bill including the group of services including the particular service and the at least one other service is prepared for communication to a payer. Boyer and Hunt, when taken alone or in combination, neither disclose nor suggest these features.

The present claimed invention “group[s] records of services provided to a specific patient and provid[es] a consolidated reimbursement claim to a payer” (specification, page 2, lines 31-32). The claimed arrangement advantageously “recognize[s] that a problem exists in having financial system functions dependent on both administrative and operational (e.g., clinical) system requirements ... [and] The disclosed system addresses this problem by advantageously separating financial system function from administrative and clinical system requirements and constraints” (page 3, lines 33-37). “The rule-based system efficiently groups services for...one or more encounters...cases or visits into one account for joint reimbursement” (page 4, lines 31-33). Moreover,

“As an example, assume a contract states that a transplant is reimbursed at a case rate and includes hospital service costs and re-transplant surgery costs...hospital based care costs during a convalescent period of ninety days following transplant...routine outpatient evaluation procedures and testing...as well as certain pre-admission testing. Typically this is performed during at least three patient encounters with the healthcare system, one for pre-admission testing, one for the transplant admission and one for each outpatient visit for testing or evaluation. However, the inventors [of the present claimed invention] have recognized that financially this is advantageously processed using one reimbursement record supporting the reimbursement for the services at the specified single contract rate” (page 5, lines 13-23).

To the contrary, Boyer describes a “point of service” environment, “for providing adjudicated third party payment **at the point of service**” (col. 1, lines 6-8). In Boyer, a patient may receive several services and those services can feasibly be adjudicated and billed to the payer at the point of service, while the patient is still present. Boyer describes that

“an adjudicated settlement transaction at a point of service which designates the portion of the service to be paid by the third party payor and the portion to be paid by the customer...the point of service terminal creates a purchase transaction which is adjudicated by an adjudication engine substantially in **real-time** (at the time of service or in a purchase transaction processing batch) to determine a first portion of the purchase which is to be paid by the third party payor and a second portion of the purchase which is to be paid by the customer” (col. 3, lines 12-27).

Boyer further describes that

“While it is desired that the adjudication take place virtually instantaneously so that payment may be completely settled at the point of service at the time of service, ‘real-time’ as used herein is also intended to permit ‘batch’ processing and settlement of the claims processed by the service provider. For example, a healthcare administrative office may settle all of its claims for a given day overnight by batch processing the adjudicated settlement transactions received that day. In such a case, the adjudicated settlement transactions submitted that day may not actually be paid for a day or two” (col. 5, line 63-col. 6, line 6).

Thus, Boyer is merely concerned with the point of service which is used for billing while the patient is still at the medical facility. This is wholly unlike the present claimed invention which recites “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week.”

The present claimed invention advantageously recognizes that there are times when multiple bills received from multiple treatment facilities spanning a large time period can be combined into a single bill (*see* specification, page 5, lines 13-23). For example, during a complex surgery such as a transplant, a pre-admission test, transplant surgery and follow-up test can be combined into a single record (page 6, lines 7-11). Thus, unlike Boyer, the present claimed invention includes “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities **on different occasions separated by a time period of up to at least a week**” and “automatically searching said record repository for a record indicating at least one other service provided to said specific entity and linked to said particular service” as recited in claim 9 of the present invention. The claimed system automatically groups the items together into a single reimbursement record and calculates the amount for the related services. Boyer neither discloses nor suggests these features.

In contrast, Boyer is concerned with a more basic “point of service” reimbursement system for services provided that same day. Specifically, Boyer describes an instantaneous point of care reimbursement system that bundles charges for services performed that day at that specific service location. Thus, Boyer is fundamentally different than the present claimed

invention, as Boyer is only concerned with encounters during a **short time period** (one day) and the present claimed invention is concerned with bundling encounters over an extended period (e.g., spanning weeks and months) to encompass treatments that are associated with each other. Additionally, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with bundling records from a **single treatment facility**. This is wholly unlike the claimed arrangement which groups services into a reimbursement record that originates from a **plurality of different treatment facilities**. Boyer (with Hunt) does not make the present claimed invention unpatentable, as Boyer is concerned with a relatively simple system that combines records from a single service facility at the point of care. Boyer is a point of care system. This is fundamentally different from the present claimed invention which supports a complex sophisticated system that combines records from multiple patients, multiple encounters and multiple facilities. Specifically, the claimed system supports a healthcare enterprise that may include multiple hospitals, emergency rooms, clinics, same day surgery centers, specialty centers (like lab, radiology, MRI, dialysis, etc.) physician offices, etc., that provide the full spectrum of health services to patients that may have multiple third party insurance policies, each covering some different portion of services provided at one of the respective facilities. The claimed system enables recording of the various inpatient and outpatient services for a given patient at different facilities over an extended period. The claimed system automatically determines how to organize, bill and calculate expected payment from multiple sources via their user-definable rules.

The Office Action on page 13 (and in the “Response to Arguments” section) cites col. 8, lines 7-67, col. 11, lines 19-34 and figure 6 of Boyer as being relevant to the present claimed invention. Applicants respectfully disagree. The first cited passage mainly describes an

“adjudication engine 22 utilized in the system of FIG. 1 in the healthcare environment ... at the center of the adjudication engine 22 resides a rules processor 30 whose sole purpose is to adjudicate and price healthcare transactions that are submitted by a healthcare provider 12 ... The rules processor 30 performs two primary tasks: the first is to decide whether a healthcare transaction is reimbursable and the second is to price the amount by which the healthcare provider 12 is to be reimbursed based on the healthcare transaction or claim received from the Clinical Pathways Database 34. To accomplish these tasks the rules processor 30 needs to get information from the following databases: Policy Database 32-Information pertaining to the patient’s coverage is defined in this database ... Clinical Pathways Database 34-Information pertaining to the current healthcare transaction (HCT), links to previous HCTs (the clinical pathway), and the state of each HCT as it exists in the pathway ... Healthcare History Database 36-Information pertaining to the patient’s healthcare history is stored in this database” (col. 8, lines 8-57).

Although the cited passage of Boyer describes deciding whether a healthcare transaction is reimbursable and calculating the amount of money a healthcare provider is to be reimbursement, Boyer does not disclose or suggest “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 9 of the present invention. Moreover, the second cited passage of Boyer mainly describes that

“the Internet bank 16 sends the cardholder a unified credit card and explanation of benefits (EOB) statement at the end of the current credit cycle. FIGS. 5 and 6 together illustrate a credit card statement (FIG. 5) and an explanation of benefits (EOB) statement (FIG. 6) for a cobranded healthcare/credit card account ... the credit card statement is conventional except that healthcare transactions are separated out and explained in an EOB statement for each family member covered by the healthcare policy and credit card. In this fashion, the cardholder obtains a monthly statement which neatly ties medical transactions to their related credit card transactions, thus providing a complete record of services performed which can readily be maintained as a healthcare record for the patient and a record of payment for federal income tax purposes” (col. 11, lines 19-34).

Thus, in Boyer, a cobranded healthcare/payment card is issued to a patient and the Internet bank debits the cardholder's credit account against healthcare provider's payable via a credit card network (*see* fig. 3, reference nos. 100 and 104 of Boyer). After payment has been provided, the Internet bank sends the cardholder a unified credit card and EOB statement. This is further seen in cited fig. 6 of Boyer, which shows a summary of all activities after payment has been submitted. However, the statement described in Boyer is wholly unlike the present claimed invention which employs “a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” in order to calculate “a reimbursement amount for said particular service based on predetermined reimbursement rules” as recited in claim 9 of the present invention. Rather, Boyer merely describes a payment card system that can only be used in a point of service environment (i.e., a service provided to a patient can be successfully adjudicated at the point of service so that appropriate billing can be provided). Additionally, as seen in fig. 6 of Boyer, each service fee due for a single visit is paid independently of another other visit. Nowhere in the cited passages or elsewhere in Boyer is there any mention or suggestion “receiving different treatment services at different healthcare provider facilities on different occasions separated by a

time period of up to at least a week,” or the ability to search among such separate encounters of services, or the ability to search among separate encounters for different patients who have to be billed on the same claim (i.e., as in a transplant donor/recipient or mother/baby situation). Rather, Boyer merely deals with point of service treatment, which occurs on one occasion, and adjudicates a claim while a patient is at a healthcare provider who is rendering the service. Boyer does not recognize the advantages of the present claimed invention, such as a complex reimbursement system, where services occur over a period of time and at various treatment settings and grouping these treatments into reimbursement records. Whereas Boyer provides a point of service treatment, the present claimed invention receives “different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 9 of the present invention. Therefore, nowhere in the cited passages or elsewhere in Boyer is there mention or suggestion of the features of the present claimed invention.

Furthermore, in the “Response to Arguments” section, it is argued that “the rules processor decides whether a healthcare transaction is reimbursable and price the amount of reimbursement based on the healthcare transaction or claim received from the Clinical Pathways Database 34, and explanation of benefits can be seen in figure 6.” Applicants respectfully submit that figure 6 merely shows a summary of individual point of service visits at different providers that have been individually adjudicated and paid (i.e., a summary of individual billing records is shown for Samantha Smith and John Smith). Boyer does not show or suggest visits at different providers that have been **linked** and paid as one claim, as in the present claimed invention. The claim total shown in figure 6 is calculated individually for each day. Although the claim totals are shown for Samantha Smith and John Smith, these claims are **separately** adjudicated, grouped and billed. Merely summarizing individual point of service visits adjudicated and paid individually by the same payment access card, as in Boyer, is wholly unlike the present claimed invention which employs “a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 9 of the present invention. Boyer further shows that the EOB statements come from an Internet bank and not from the software handling the service records (*see* col. 11, lines 19-34). Therefore, as the services in Boyer are individually adjudicated and paid by point of service, Boyer neither discloses nor suggests “employing a record repository for linking a plurality of different encounters and associated service records of

a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 9 of the present invention.

In addition, Boyer is concerned with substantially instantaneous bill processing, or overnight claim batch processing, for example. This is wholly unlike the present claimed invention, which automatically searches for, and groups records in response to the receipt of a first record and searches for any additional record of services provide to the specific patient. Therefore, it is respectfully submitted that Boyer neither disclose nor suggest “in response to receiving said first record, **automatically** searching said record repository for a record indicating at least one other service provided to said specific entity and linked to said particular service” as recited in claim 9 of the present invention.

As described above, Boyer is a point of service system that compiles records for patients that have occurred on a specific date at a specific facility. However, Boyer is unable to operate in a manner equivalent to the present claimed system. Specifically, the claimed system is concerned with “employing a record repository for **linking a plurality of different encounters**” that have occurred at different facilities on different occasions. Once linked in the repository, the claim system advantageously searches the records in the repository **automatically** to locate any other record of service provided to the specific patient on a different occasion. Thus, the claimed arrangement enables **automatic** grouping of related services spanning extended time periods and different facilities into a single reimbursement claim.

Applicants respectfully submit that even combining the system of Boyer with the system of Hunt, as suggested by the Office Action, would not make the present claimed invention unpatentable.

Hunt “relates to computer software designed for processing medical billing record information received from a pre-existing database, and in particular to processing medical billing record information to ensure compliance with the ‘72 hour billing rule’ for submitted Medicare outpatient claims” (col. 1, lines 6-11). In Hunt, “computer-coded software instructions [are] capable of being executed by a conventional computer microprocessor to perform information processing in **pre-existing** medical billing record information” (col. 2, lines 47-50). Hunt describes that “[t]he software contains a set of instructions for updating the matching medical billing record information to determine if the inpatient admission was ‘medically related’ to the

outpatient service, and to indicate the **payees** and amounts of **refunds** generated for erroneously billed outpatient service" (col. 3, lines 14-19). Thus, Hunt determines if the outpatient service was medically related to inpatient service and therefore can indicate amounts of refunds for erroneously billed outpatient service.

Hunt also describes that "[e]ach input billing record is sorted and stored only once such that each separate database on the processed medical billing record storage medium 4 contains a continuously up-to-date record of all input medical billing records processed by the software" (col. 5, lines 22-26). Furthermore, Hunt describes that "[t]he determination of whether reimbursement must be made for the distinguished outpatient claims will turn on whether the outpatient claim was 'medically related' to the inpatient stay ... This determination can be performed manually by claims processing personnel or automatically by the medical billing record processing software" (col. 7, lines 31-38). Therefore, Hunt merely determines whether the outpatient claim was medically related to the inpatient stay and automatically determines whether reimbursement must be made for the outpatient claim. The automatic determination is performed for **already created** (or pre-existing) separate inpatient and outpatient billing records. These outpatient and inpatient records are created independently of each other and Hunt merely determines whether the outpatient records are medically related to inpatient records, so that appropriate refunds can be provided for overpayments already sent and processed by the payer. However, nowhere in the cited passages or elsewhere in Hunt (and Boyer) is there any mention or suggestion of "employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" as recited in claim 9 of the present invention. Furthermore, Hunt (with Boyer) does not calculate "a reimbursement amount for said particular service based on predetermined reimbursement rules" as recited in claim 9 of the present invention. Hunt describes "[b]efore processing the medical billing record data to determine if a potential violation of the Medicare '72 hour billing rule' has occurred, the computer processor 1 reads all Medicare Remittance Advice (RA) billing record information from a pre-existing database contained on the input medical billing record storage medium 3 for conversion into a format suitable for use by the processing software" (col. 4, lines 51-57). Hunt also describes that "[t]he payment amount segment contains a separate hexadecimal coded character in its last byte for separate hexadecimal coded character in its last byte for determining whether a payment was received by the medical service provider or refunded by the service provider to a receiving party" (col. 5, lines 43-47). Thus, Hunt merely uses a conversion program to turn billing record data into a

certain format. However, Hunt cannot calculate a reimbursement amount, as disclosed in the present claimed invention. Rather, Hunt can only determine whether a reimbursement should have been made for an overpayment and refunds the payment if necessary and uses a coded character to determine whether a payment was received or refunded by the medical service provider. Therefore, Hunt, when taken alone or in combination with Boyer, neither discloses nor suggests the features of the present claimed invention.

Even if the system of Boyer was combined with the system of Hunt, the combined system would not make the present claimed invention unpatentable. The combined system would be a point of service environment, where a patient would come in to a hospital/clinic and have several services performed on a single day. Those services would be adjudicated and billed to the payer while the patient is still at the hospital/clinic. After the billing and payment, the records of patient visits would be stored on a database. The record would be compared to see if an inpatient admission was “medically related” to an outpatient service. Refunds may be generated for erroneously billed outpatient services. However, the combined system of Boyer and Hunt would neither disclose nor suggest “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 9 of the present invention. The combined system would be directed towards a point of service environment, and therefore, is not concerned with “automatically applying predetermined allocation rules for providing a reimbursement record indicating a group of services to be billed together on a single bill, said group of services having been provided to said entity, by, in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific entity and linked to said particular service” or “calculating a reimbursement amount for said particular service based on predetermined reimbursement rules; and preparing a bill including said group of services comprising said particular service and said at least one other service for communication to a payer” as recited in claim 9 of the present invention. Unlike the present claimed invention, the combined system cannot search among separate encounters of services provided “on different occasions separated by a time period of up to at least a week” because the combined system only calculates and bills based upon events occurring on a single day (at the point of service). Even though the combined system may compare an outpatient visit to see if it is “medically related” to an inpatient visit, this comparison is performed after billing and payment is settled. The combined system is wholly unlike the present claimed invention which links “a plurality of different

encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week,” then automatically applies “predetermined allocation rules for providing a reimbursement record indicating a group of services to be billed together on a single bill, said group of services having been provided to said entity, by, in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific entity and linked to said particular service” and calculates “a reimbursement amount for said particular service based on predetermined reimbursement rules” as recited in claim 9 of the present invention. Therefore, the combined system of Boyer and Hunt neither disclose nor suggest the features of the present claimed invention. Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

Dependent claims 10-15 are considered to be patentable based on their dependence on independent claim 9. Therefore, all arguments presented above with respect to claim 9 also apply to claims 10-15. Thus, withdrawal of the rejection of claims 10-15 under 35 U.S.C. 103(a) is further respectfully requested.

CLAIM 16

Claim 16 is dependent on claim 9 and is considered patentable for the reasons presented above with respect to claim 9. Claim 16 is also considered patentable because Boyer with Hunt neither discloses nor suggests that “said specific entity comprises at least one of, (a) a patient, (b) a company, (c) an individual person and (d) a group of people and including the step of searching for other services also provided to said specific entity” as recited in claim 16 of the present invention. Boyer (with Hunt) fails to describe an equivalent way that the claimed reimbursement and billing rules are used to automatically search for other services provided to a specific patient in other visits that must be billed and reimbursed together. Boyer (in the passage cited by the Office Action) describes a Healthcare History Database that collects services, HCTs and medical data related to the patient, and is used by the rules processor to “execute algorithms that pertain to the conditions that exist in the Policy Database 32. In many cases the healthcare history gives overriding information that enables the rules processor 30 to reimburse a healthcare transaction that otherwise would not be reimbursable based on current conditions” (col. 8, lines 62-67). This describes the way data may be used to determine if current services are covered and/or are reimbursable. Boyer neither discloses nor suggests grouping services together with the current services to calculate reimbursement. In Boyer, an

HCT is something that has already been paid, not something that is still being evaluated for payment. Therefore, Boyer neither discloses nor suggests a system equivalent to the present claimed system. Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

CLAIM 17

Independent claim 17 provides a method for determining payment for provision of multiple different services based on predetermined reimbursement rules. A record repository is employed for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week. A first record identifying a particular service provided to a specific patient is received. In response to receiving the first record, the record repository is automatically searched for a record of an additional service provided to the specific patient. It is automatically determined whether the particular service as well as the additional service provided to the specific patient qualifies for reimbursement under a single reimbursement contract. A record is automatically created indicating the particular service and additional service provided to the specific patient qualify for reimbursement under a single reimbursement contract. A reimbursement amount is calculated for the particular service and additional service provided to the specific patient based on the single reimbursement contract. A reimbursement amount is automatically calculated, in response to receiving further records identifying corresponding further services provided to the specific patient for individual records of the further records, one record at a time, in response to automatically determining the further services are to be grouped with the particular service for reimbursement under the single reimbursement contract. Boyer and Hunt, when taken alone or in combination, neither disclose nor suggest these features.

The present claimed invention “group[s] records of services provided to a specific patient and provid[es] a consolidated reimbursement claim to a payer” (specification, page 2, lines 31-32). The claimed arrangement advantageously “recognize[s] that a problem exists in having financial system functions dependent on both administrative and operational (e.g., clinical) system requirements ... [and] The disclosed system addresses this problem by advantageously separating financial system function from administrative and clinical system requirements and constraints” (page 3, lines 33-37). “The rule-based system efficiently groups services for...one or more encounters...cases or visits into one account for joint reimbursement” (page 4, lines 31-33). Moreover,

“As an example, assume a contract states that a transplant is reimbursed at a case rate and includes hospital service costs and re-transplant surgery costs...hospital based care costs during a convalescent period of ninety days following transplant...routine outpatient evaluation procedures and testing...as well as certain pre-admission testing. Typically this is performed during at least three patient encounters with the healthcare system, one for pre-admission testing, one for the transplant admission and one for each outpatient visit for testing or evaluation. However, the inventors [of the present claimed invention] have recognized that financially this is advantageously processed using one reimbursement record supporting the reimbursement for the services at the specified single contract rate” (page 5, lines 13-23).

To the contrary, Boyer describes a “point of service” environment, “for providing adjudicated third party payment **at the point of service**” (col. 1, lines 6-8). In Boyer, a patient may receive several services and those services can feasibly be adjudicated and billed to the payer at the point of service, while the patient is still present. Boyer describes that

“an adjudicated settlement transaction at a point of service which designates the portion of the service to be paid by the third party payor and the portion to be paid by the customer...the point of service terminal creates a purchase transaction which is adjudicated by an adjudication engine substantially in **real-time** (at the time of service or in a purchase transaction processing batch) to determine a first portion of the purchase which is to be paid by the third party payor and a second portion of the purchase which is to be paid by the customer” (col. 3, lines 12-27).

Boyer further describes that

“While it is desired that the adjudication take place virtually instantaneously so that payment may be completely settled at the point of service at the time of service, ‘real-time’ as used herein is also intended to permit ‘batch’ processing and settlement of the claims processed by the service provider. For example, a healthcare administrative office may settle all of its claims for a given day overnight by batch processing the adjudicated settlement transactions received that day. In such a case, the adjudicated settlement transactions submitted that day may not actually be paid for a day or two” (col. 5, line 63-col. 6, line 6).

Thus, Boyer is merely concerned with the point of service which is used for billing while the patient is still at the medical facility. This is wholly unlike the present claimed invention which recites “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at

different healthcare provider facilities on different occasions separated by a time period of up to at least a week.”

The present claimed invention advantageously recognizes that there are times when multiple bills received from multiple treatment facilities spanning a large time period can be combined into a single bill (*see* specification, page 5, lines 13-23). For example, during a complex surgery such as a transplant, a pre-admission test, transplant surgery and follow-up test can be combined into a single record (page 6, lines 7-11). Thus, unlike Boyer, the present claimed invention includes “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities **on different occasions separated by a time period of up to at least a week**” and “automatically searching said record repository for a record of an additional service provided to said specific patient” as recited in claim 17 of the present invention. The claimed system automatically groups the items together into a single reimbursement record and calculates the amount for the related services. Boyer neither discloses nor suggests these features.

In contrast, Boyer is concerned with a more basic “point of service” reimbursement system for services provided that same day. Specifically, Boyer describe an instantaneous point of care reimbursement system that bundles charges for services performed that day at that specific service location. Thus, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with encounters during a **short time period** (one day) and the present claimed invention is concerned with bundling encounters over an extended period (e.g., spanning weeks and months) to encompass treatments that are associated with each other. Additionally, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with bundling records from a **single treatment facility**. This is wholly unlike the claimed arrangement which groups services into a reimbursement record that originates from a **plurality of different treatment facilities**. Boyer (with Hunt) does not make the present claimed invention unpatentable, as Boyer is concerned with a relatively simple system that combines records from a single service facility at the point of care. Boyer is a point of care system. This is fundamentally different from the present claimed invention which supports a complex sophisticated system that combines records from multiple patients, multiple encounters and multiple facilities. Specifically, the claimed system supports a healthcare enterprise that may include multiple hospitals, emergency rooms, clinics, same day surgery centers, specialty centers (like lab, radiology, MRI, dialysis, etc.) physician offices, etc., that provide the full

spectrum of health services to patients that may have multiple third party insurance policies, each covering some different portion of services provided at one of the respective facilities. The claimed system enables recording of the various inpatient and outpatient services for a given patient at different facilities over an extended period. The claimed system automatically determines how to organize, bill and calculate expected payment from multiple sources via their user-definable rules.

The Office Action on page 17 (and in the "Response to Arguments" section) cites the abstract of Boyer, col. 8, lines 7-67, col. 11, lines 19-34 (and figure 6) of Boyer as being relevant to the present claimed invention. Applicants respectfully disagree. The abstract of Boyer mainly describes

"A point of service third party adjudicated payment system and method which provides for the creation of an adjudicated settlement transaction at a point of service which designates the portion of the service to be paid by the third party payor and the portion to be paid by the customer ... [including] a point of service terminal which accepts a payment system access card, such as a credit card, debit card, or purchase card, for payment for a purchase of a service and/or product by a customer, where at least part of the purchase is reimbursable by a third party payor. The point of service terminal creates a purchase transaction which is adjudicated by an adjudication engine substantially in real-time (at the time of service or in a purchase transaction processing batch) to determine a first portion of the purchase which is to be paid by the third party payor and a second portion of the purchase which is to be paid by the customer" (Abstract).

As described above, Boyer is only concerned with a point of service (or "real-time") environment. Additionally, the next cited passage mainly describes an

"adjudication engine 22 utilized in the system of FIG. 1 in the healthcare environment ... at the center of the adjudication engine 22 resides a rules processor 30 whose sole purpose is to adjudicate and price healthcare transactions that are submitted by a healthcare provider 12 ... The rules processor 30 performs two primary tasks: the first is to decide whether a healthcare transaction is reimbursable and the second is to price the amount by which the healthcare provider 12 is to be reimbursed based on the healthcare transaction or claim received from the Clinical Pathways Database 34. To accomplish these tasks the rules processor 30 needs to get information from the following databases: Policy Database 32-Information pertaining to the patient's coverage is defined in this database ... Clinical Pathways Database 34-Information pertaining to the current healthcare transaction (HCT), links to previous HCTs (the clinical pathway), and the state of each HCT as it exists in the pathway ... Healthcare History Database 36-Information pertaining to the patient's healthcare history is stored in this database" (col. 8, lines 8-57).

Although the cited passage of Boyer describes deciding whether a healthcare transaction is reimbursable and calculating the amount of money a healthcare provider is to be reimbursement, Boyer does not disclose or suggest “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 17 of the present invention. Moreover, the last cited passage of Boyer mainly describes that

“the Internet bank 16 sends the cardholder a unified credit card and explanation of benefits (EOB) statement at the end of the current credit cycle. FIGS. 5 and 6 together illustrate a credit card statement (FIG. 5) and an explanation of benefits (EOB) statement (FIG. 6) for a cobranded healthcare/credit card account ... the credit card statement is conventional except that healthcare transactions are separated out and explained in an EOB statement for each family member covered by the healthcare policy and credit card. In this fashion, the cardholder obtains a monthly statement which neatly ties medical transactions to their related credit card transactions, thus providing a complete record of services performed which can readily be maintained as a healthcare record for the patient and a record of payment for federal income tax purposes” (col. 11, lines 19-34).

Thus, in Boyer, a co-branded healthcare/payment card is issued to a patient and the Internet bank debits the cardholder’s credit account against healthcare provider’s payable via a credit card network (*see* fig. 3, reference nos. 100 and 104 of Boyer). After payment has been provided, the Internet bank sends the cardholder a unified credit card and EOB statement. This is further seen in cited fig. 6 of Boyer, which shows a summary of all activities after payment has been submitted. However, the statement described in Boyer is wholly unlike the present claimed invention which employs “a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” in order to automatically calculate “a reimbursement amount, in response to receiving further records identifying corresponding further services provided to said specific patient for individual records of said further records, one record at a time, in response to automatically determining said further services are to be grouped with said particular service for reimbursement under said single reimbursement contract” as recited in claim 17 of the present invention. Rather, Boyer merely describes a payment card system that can only be used in a point of service environment (i.e., a service provided to a patient can be successfully adjudicated at the point of service so that appropriate billing can be provided). Additionally, as seen in fig. 6

of Boyer, each service fee due for a single visit is paid independently of another other visit. Nowhere in the cited passages or elsewhere in Boyer is there any mention or suggestion “receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week,” or the ability to search among such separate encounters of services, or the ability to search among separate encounters for different patients who have to be billed on the same claim (i.e., as in a transplant donor/recipient or mother/baby situation). Rather, Boyer merely deals with point of service treatment, which occurs on one occasion, and adjudicates a claim while a patient is at a healthcare provider who is rendering the service. Boyer does not recognize the advantages of the present claimed invention, such as a complex reimbursement system, where services occur over a period of time and at various treatment settings and grouping these treatments into reimbursement records. Whereas Boyer provides a point of service treatment, the present claimed invention receives “different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 17 of the present invention. Therefore, nowhere in the cited passages or elsewhere in Boyer is there mention or suggestion of the features of the present claimed invention.

Furthermore, in the “Response to Arguments” section, it is argued that “the rules processor decides whether a healthcare transaction is reimbursable and price the amount of reimbursement based on the healthcare transaction or claim received from the Clinical Pathways Database 34, and explanation of benefits can be seen in figure 6.” Applicants respectfully submit that figure 6 merely shows a summary of individual point of service visits at different providers that have been individually adjudicated and paid (i.e., a summary of individual billing records is shown for Samantha Smith and John Smith). Boyer does not show or suggest visits at different providers that have been **linked** and paid as one claim, as in the present claimed invention. The claim total shown in figure 6 is calculated individually for each day. Although the claim totals are shown for Samantha Smith and John Smith, these claims are **separately** adjudicated, grouped and billed. Merely summarizing individual point of service visits adjudicated and paid individually by the same payment access card, as in Boyer, is wholly unlike the present claimed invention which employs “a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 17 of the present invention. Boyer further shows that the EOB statements come from an Internet bank and not from the software

handling the service records (*see* col. 11, lines 19-34). Therefore, as the services in Boyer are individually adjudicated and paid by point of service, Boyer neither discloses nor suggests “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 17 of the present invention.

In addition, Boyer is concerned with substantially instantaneous bill processing, or overnight claim batch processing, for example. This is wholly unlike the present claimed invention, which automatically searches for, and groups records in response to the receipt of a first record and searches for any additional record of services provide to the specific patient. Therefore, it is respectfully submitted that Boyer neither disclose nor suggest “in response to receiving said first record, **automatically** searching said record repository for a record of an additional service provided to said specific patient” as recited in claim 17 of the present invention.

As described above, Boyer is a point of service system that compiles records for patients that have occurred on a specific date at a specific facility. However, Boyer is unable to operate in a manner equivalent to the present claimed system. Specifically, the claimed system is concerned with “employing a record repository for **linking a plurality of different encounters**” that have occurred at different facilities on different occasions. Once linked in the repository, the claim system advantageously searches the records in the repository **automatically** to locate any other record of service provided to the specific patient on a different occasion. Thus, the claimed arrangement enables **automatic** grouping of related services spanning extended time periods and different facilities into a single reimbursement claim.

Applicants respectfully submit that even if the system of Boyer was combined with the system of Hunt, as suggested by the Office Action, the combination would not make the present claimed invention unpatentable.

Hunt “relates to computer software designed for processing medical billing record information received from a pre-existing database, and in particular to processing medical billing record information to ensure compliance with the ‘72 hour billing rule’ for submitted Medicare outpatient claims” (col. 1, lines 6-11). In Hunt, “computer-coded software instructions [are] capable of being executed by a conventional computer microprocessor to perform information

processing in **pre-existing** medical billing record information” (col. 2, lines 47-50). Hunt describes that “[t]he software contains a set of instructions for updating the matching medical billing record information to determine if the inpatient admission was ‘medically related’ to the outpatient service, and to indicate the **payees** and amounts of **refunds** generated for erroneously billed outpatient service” (col. 3, lines 14-19). Thus, Hunt determines if the outpatient service was medically related to inpatient service and therefore can indicate amounts of refunds for erroneously billed outpatient service.

Hunt also describes that “[e]ach input billing record is sorted and stored only once such that each separate database on the processed medical billing record storage medium 4 contains a continuously up-to-date record of all input medical billing records processed by the software” (col. 5, lines 22-26). Furthermore, Hunt describes that “[t]he determination of whether reimbursement must be made for the distinguished outpatient claims will turn on whether the outpatient claim was ‘medically related’ to the inpatient stay ... This determination can be performed manually by claims processing personnel or automatically by the medical billing record processing software” (col. 7, lines 31-38). Therefore, Hunt merely determines whether the outpatient claim was medically related to the inpatient stay and automatically determines whether reimbursement must be made for the outpatient claim. The automatic determination is performed for **already created** (or pre-existing) separate inpatient and outpatient billing records. These outpatient and inpatient records are created independently of each other and Hunt merely determines whether the outpatient records are medically related to inpatient records, so that appropriate refunds can be provided for overpayments already sent and processed by the payer. However, nowhere in the cited passages or elsewhere in Hunt (and Boyer) is there any mention or suggestion of “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 17 of the present invention. Furthermore, Hunt (with Boyer) does not calculate “a reimbursement amount, in response to receiving further records identifying corresponding further services provided to said specific patient for individual records of said further records, one record at a time, in response to automatically determining said further services are to be grouped with said particular service for reimbursement under said single reimbursement contract” as recited in claim 17 of the present invention. Hunt describes “[b]efore processing the medical billing record data to determine if a potential violation of the Medicare ‘72 hour billing rule’ has occurred, the computer processor 1 reads all Medicare Remittance Advice (RA) billing record information from a pre-existing database contained on

the input medical billing record storage medium 3 for conversion into a format suitable for use by the processing software” (col. 4, lines 51-57). Hunt also describes that “[t]he payment amount segment contains a separate hexadecimal coded character in its last byte for separate hexadecimal coded character in its last byte for determining whether a payment was received by the medical service provider or refunded by the service provider to a receiving party” (col. 5, lines 43-47). Thus, Hunt merely uses a conversion program to turn billing record data into a certain format. However, Hunt cannot calculate a reimbursement amount, as disclosed in the present claimed invention. Rather, Hunt can only determine whether a reimbursement should have been made for an overpayment and refunds the payment if necessary and uses a coded character to determine whether a payment was received or refunded by the medical service provider. Therefore, Hunt, when taken alone or in combination with Boyer, neither discloses nor suggests the features of the present claimed invention.

Even if the system of Boyer was combined with the system of Hunt, the combined system would not make the present claimed invention unpatentable. The combined system would be a point of service environment, where a patient would come in to a hospital/clinic and have several services performed on a single day. Those services would be adjudicated and billed to the payer while the patient is still at the hospital/clinic. After the billing and payment, the records of patient visits would be stored on a database. The record would be compared to see if an inpatient admission was “medically related” to an outpatient service. Refunds may be generated for erroneously billed outpatient services. However, the combined system of Boyer and Hunt would neither disclose nor suggest “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 17 of the present invention. The combined system would be directed towards a point of service environment, and therefore, is not concerned with “automatically calculating a reimbursement amount, in response to receiving further records identifying corresponding further services provided to said specific patient for individual records of said further records, one record at a time, in response to automatically determining said further services are to be grouped with said particular service for reimbursement under said single reimbursement contract” as recited in claim 17 of the present invention. Unlike the present claimed invention, the combined system cannot search among separate encounters of services provided “on different occasions separated by a time period of up to at least a week” because the combined system only calculates and bills based upon events occurring on a single day (at the point of service). Even though the combined system may

compare an outpatient visit to see if it is “medically related” to an inpatient visit, this comparison is performed after billing and payment is settled. The combined system is wholly unlike the present claimed invention which links “a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week,” then automatically searches the “record repository for a record of an additional service provided to said specific patient” and automatically calculates “a reimbursement amount, in response to receiving further records identifying corresponding further services provided to said specific patient for individual records of said further records, one record at a time, in response to automatically determining said further services are to be grouped with said particular service for reimbursement under said single reimbursement contract” as recited in claim 17 of the present invention. Therefore, the combined system of Boyer and Hunt neither disclose nor suggest the features of the present claimed invention. Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

Dependent claims 19-22 are considered to be patentable based on their dependence on independent claim 17. Therefore, all arguments presented above with respect to claim 17 also apply to claims 19-22. Thus, withdrawal of the rejection of claims 19-22 under 35 U.S.C. 103(a) is further respectfully requested.

CLAIM 18

Claim 18 is dependent on claim 17 and is considered patentable for the reasons presented above with respect to claim 17. Claim 18 is also considered patentable because Boyer and Hunt neither disclose nor suggest “preparing a bill including said reimbursement amount for said particular service and additional service for communication with a payer” as recited in claim 18 of the present invention. The present claimed invention is concerned with “grouping records of services provided to a specific patient and providing a consolidated reimbursement claim to a payer” (*see* specification, page 3, lines 22-24). In contrast, Boyer is concerned with a virtual real-time billing system. In the Boyer system, the funds are first debited from the cardholder’s credit account (*see* Boyer, figure 3, Step 104) and then later a statement is sent to the cardholder detailing the funds withdrawn (*see* figure 3, Step 114). Thus, Boyer is fundamentally different from the present claimed invention, as Boyer first charges the payer and then sends a statement. In contrast, the present claimed invention prepares a bill with an amount to be reimbursed to deliver to the payer wherein the amount is calculated based on the different services provided to the patient at different healthcare provider facilities on different occasions separated by a time

period of up to at least a week. Therefore, it is respectfully submitted that Boyer neither discloses nor suggests “preparing a bill including said reimbursement amount for said particular service and additional service for communication to a payer” as recited in claim 18 of the present claimed invention. Consequently, withdrawal of the rejection of claim 18 is respectfully requested.

CLAIM 23

Independent claim 23 provides a method for determining payment for provision of multiple different services to a patient based on predetermined reimbursement rules. A record repository is employed for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week. A first record identifying a particular service provided to a specific patient is received. In response to receiving the first record, the record repository is automatically searched for a record indicating at least one other service provided to the specific patient. It is automatically determined whether the particular service as well as the at least one other service provided to the specific patient qualify for grouped reimbursement under a single reimbursement contract. The reimbursement record is updated to incorporate a record item representing the particular service in response to determination of the qualification. A reimbursement amount is calculated for the particular service and at least one other service provided to the specific patient based on the single reimbursement contract. Boyer and Hunt, when taken alone or in combination, neither disclose nor suggest these features.

The present claimed invention “group[s] records of services provided to a specific patient and provid[es] a consolidated reimbursement claim to a payer” (specification, page 2, lines 31-32). The claimed arrangement advantageously “recognize[s] that a problem exists in having financial system functions dependent on both administrative and operational (e.g., clinical) system requirements ... [and] The disclosed system addresses this problem by advantageously separating financial system function from administrative and clinical system requirements ad constraints” (page 3, lines 33-37). “The rule-based system efficiently groups services for...one or more encounters...cases or visits into one account for joint reimbursement” (page 4, lines 31-33). Moreover,

“As an example, assume a contract states that a transplant is reimbursed at a case rate and includes hospital service costs and re-transplant surgery costs...hospital based care costs

during a convalescent period of ninety days following transplant...routine outpatient evaluation procedures and testing...as well as certain pre-admission testing. Typically this is performed during at least three patient encounters with the healthcare system, one for pre-admission testing, one for the transplant admission and one for each outpatient visit for testing or evaluation. However, the inventors [of the present claimed invention] have recognized that financially this is advantageously processed using one reimbursement record supporting the reimbursement for the services at the specified single contract rate" (page 5, lines 13-23).

To the contrary, Boyer describes a "point of service" environment, "for providing adjudicated third party payment **at the point of service**" (col. 1, lines 6-8). In Boyer, a patient may receive several services and those services can feasibly be adjudicated and billed to the payer at the point of service, while the patient is still present. Boyer describes that

"an adjudicated settlement transaction at a point of service which designates the portion of the service to be paid by the third party payor and the portion to be paid by the customer...the point of service terminal creates a purchase transaction which is adjudicated by an adjudication engine substantially in **real-time** (at the time of service or in a purchase transaction processing batch) to determine a first portion of the purchase which is to be paid by the third party payor and a second portion of the purchase which is to be paid by the customer" (col. 3, lines 12-27).

Boyer further describes that

"While it is desired that the adjudication take place virtually instantaneously so that payment may be completely settled at the point of service at the time of service, 'real-time' as used herein is also intended to permit 'batch' processing and settlement of the claims processed by the service provider. For example, a healthcare administrative office may settle all of its claims for a given day overnight by batch processing the adjudicated settlement transactions received that day. In such a case, the adjudicated settlement transactions submitted that day may not actually be paid for a day or two" (col. 5, line 63-col. 6, line 6).

Thus, Boyer is merely concerned with the point of service which is used for billing while the patient is still at the medical facility. This is wholly unlike the present claimed invention which recites "employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week."

The present claimed invention advantageously recognizes that there are times when multiple bills received from multiple treatment facilities spanning a large time period can be combined into a single bill (*see* specification, page 5, lines 13-23). For example, during a complex surgery such as a transplant, a pre-admission test, transplant surgery and follow-up test can be combined into a single record (page 6, lines 7-11). Thus, unlike Boyer, the present claimed invention includes “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at **different healthcare provider facilities on different occasions separated by a time period of up to at least a week**” and “automatically searching said record repository for a record indicating at least one other service provided to said specific patient” as recited in claim 23 of the present invention. The claimed system automatically groups the items together into a single reimbursement record and calculates the amount for the related services. Boyer neither discloses nor suggests these features.

In contrast, Boyer is concerned with a more basic “point of service” reimbursement system for services provided that same day. Specifically, Boyer describe an instantaneous point of care reimbursement system that bundles charges for services performed that day at that specific service location. Thus, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with encounters during a **short time period** (one day) and the present claimed invention is concerned with bundling encounters over an extended period (e.g., spanning weeks and months) to encompass treatments that are associated with each other. Additionally, Boyer is fundamentally different than the present claimed invention, as Boyer is only concerned with bundling records from a **single treatment facility**. This is wholly unlike the claimed arrangement which groups services into a reimbursement record that originates from a **plurality of different treatment facilities**. Boyer (with Hunt) does not make the present claimed invention unpatentable, as Boyer is concerned with a relatively simple system that combines records from a single service facility at the point of care. Boyer is a point of care system. This is fundamentally different from the present claimed invention which supports a complex sophisticated system that combines records from multiple patients, multiple encounters and multiple facilities. Specifically, the claimed system supports a healthcare enterprise that may include multiple hospitals, emergency rooms, clinics, same day surgery centers, specialty centers (like lab, radiology, MRI, dialysis, etc.) physician offices, etc., that provide the full spectrum of health services to patients that may have multiple third party insurance policies, each covering some different portion of services provided at one of the respective facilities. The claimed system enables recording of the various inpatient and outpatient services for a given

patient at different facilities over an extended period. The claimed system automatically determines how to organize, bill and calculate expected payment from multiple sources via their user-definable rules.

The Office Action on page 18 argues that claim 23 is rejected for the same reasons as claim 1. Thus, as the Office Action (and, more specifically, the “Response to Arguments” section) cites col. 8, lines 7-67, col. 11, lines 19-34 and figure 6 of Boyer as being relevant to claim 1 of the present invention, Applicant assumes that the these citations are intended to be applied to the rejection of claim 23. Applicant will therefore discuss the Rejection of claim 23 with respect to these sections cited above.

Applicants respectfully submits that nowhere in these cited passages or elsewhere in Boyer (with Hunt) is there mention or suggestion of the features of claim 23 of the present invention. The first cited passage mainly describes an

“adjudication engine 22 utilized in the system of FIG. 1 in the healthcare environment ... at the center of the adjudication engine 22 resides a rules processor 30 whose sole purpose is to adjudicate and price healthcare transactions that are submitted by a healthcare provider 12 ... The rules processor 30 performs two primary tasks: the first is to decide whether a healthcare transaction is reimbursable and the second is to price the amount by which the healthcare provider 12 is to be reimbursed based on the healthcare transaction or claim received from the Clinical Pathways Database 34. To accomplish these tasks the rules processor 30 needs to get information from the following databases: Policy Database 32-Information pertaining to the patient’s coverage is defined in this database ... Clinical Pathways Database 34-Information pertaining to the current healthcare transaction (HCT), links to previous HCTs (the clinical pathway), and the state of each HCT as it exists in the pathway ... Healthcare History Database 36-Information pertaining to the patient’s healthcare history is stored in this database” (col. 8, lines 8-57).

Although the cited passage of Boyer describes deciding whether a healthcare transaction is reimbursable and calculating the amount of money a healthcare provider is to be reimbursement, Boyer does not disclose or suggest “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 23 of the present invention. Moreover, the second cited passage of Boyer mainly describes that

"the Internet bank 16 sends the cardholder a unified credit card and explanation of benefits (EOB) statement at the end of the current credit cycle. FIGS. 5 and 6 together illustrate a credit card statement (FIG. 5) and an explanation of benefits (EOB) statement (FIG. 6) for a cobranded healthcare/credit card account ... the credit card statement is conventional except that healthcare transactions are separated out and explained in an EOB statement for each family member covered by the healthcare policy and credit card. In this fashion, the cardholder obtains a monthly statement which neatly ties medical transactions to their related credit card transactions, thus providing a complete record of services performed which can readily be maintained as a healthcare record for the patient and a record of payment for federal income tax purposes" (col. 11, lines 19-34).

Thus, in Boyer, a co-branded healthcare/payment card is issued to a patient and the Internet bank debits the cardholder's credit account against healthcare provider's payable via a credit card network (*see* fig. 3, reference nos. 100 and 104 of Boyer). After payment has been provided, the Internet bank sends the cardholder a unified credit card and EOB statement. This is further seen in cited fig. 6 of Boyer, which shows a summary of all activities after payment has been submitted. However, the statement described in Boyer is wholly unlike the present claimed invention which employs "a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" in order to calculate "a reimbursement amount for said particular service and at least one other service provided to said specific patient based on said single reimbursement contract" as recited in claim 23 of the present invention. Rather, Boyer merely describes a payment card system that can only be used in a point of service environment (i.e., a service provided to a patient can be successfully adjudicated at the point of service so that appropriate billing can be provided). Additionally, as seen in fig. 6 of Boyer, each service fee due for a single visit is paid independently of another other visit. Nowhere in the cited passages or elsewhere in Boyer is there any mention or suggestion "receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week," or the ability to search among such separate encounters of services, or the ability to search among separate encounters for different patients who have to be billed on the same claim (i.e., as in a transplant donor/recipient or mother/baby situation). Rather, Boyer merely deals with point of service treatment, which occurs on one occasion, and adjudicates a claim while a patient is at a healthcare provider who is rendering the service. Boyer does not recognize the advantages of the present claimed invention, such as a complex reimbursement system, where services occur over a period of time and at various treatment settings and grouping these treatments into reimbursement records. Whereas Boyer provides a point of

service treatment, the present claimed invention receives “different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 23 of the present invention. Therefore, nowhere in the cited passages or elsewhere in Boyer is there mention or suggestion of the features of the present claimed invention.

Furthermore, in the “Response to Arguments” section, it is argued that “the rules processor decides whether a healthcare transaction is reimbursable and price the amount of reimbursement based on the healthcare transaction or claim received from the Clinical Pathways Database 34, and explanation of benefits can be seen in figure 6.” Applicants respectfully submit that figure 6 merely shows a summary of individual point of service visits at different providers that have been individually adjudicated and paid (i.e., a summary of individual billing records is shown for Samantha Smith and John Smith). Boyer does not show or suggest visits at different providers that have been **linked** and paid as one claim, as in the present claimed invention. The claim total shown in figure 6 is calculated individually for each day. Although the claim totals are shown for Samantha Smith and John Smith, these claims are **separately** adjudicated, grouped and billed. Merely summarizing individual point of service visits adjudicated and paid individually by the same payment access card, as in Boyer, is wholly unlike the present claimed invention which employs “a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 23 of the present invention. Boyer further shows that the EOB statements come from an Internet bank and not from the software handling the service records (*see* col. 11, lines 19-34). Therefore, as the services in Boyer are individually adjudicated and paid by point of service, Boyer neither discloses nor suggests “employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week” as recited in claim 23 of the present invention.

In addition, Boyer is concerned with substantially instantaneous bill processing, or overnight claim batch processing, for example. This is wholly unlike the present claimed invention, which automatically searches for, and groups records in response to the receipt of a first record and searches for any additional record of services provide to the specific patient. Therefore, it is respectfully submitted that Boyer neither disclose nor suggest “in response to

receiving said first record, **automatically** searching said record repository for a record indicating at least one other service provided to said specific patient” as recited in claim 23 of the present invention.

As described above, Boyer is a point of service system that compiles records for patients that have occurred on a specific date at a specific facility. However, Boyer is unable to operate in a manner equivalent to the present claimed system. Specifically, the claimed system is concerned with “employing a record repository for a **plurality of different encounters**” that have occurred at different facilities on different occasions. Once linked in the repository, the claim system advantageously searches the records in the repository **automatically** to locate any other record of service provided to the specific patient on a different occasion. Thus, the claimed arrangement enables **automatic** grouping of related services spanning extended time periods and different facilities into a single reimbursement claim.

Applicants respectfully submit that even if the system of Boyer was combined with the system of Hunt, as suggested by the Office Action, the combination would not make the present claimed invention unpatentable.

Hunt “relates to computer software designed for processing medical billing record information received from a pre-existing database, and in particular to processing medical billing record information to ensure compliance with the ‘72 hour billing rule’ for submitted Medicare outpatient claims” (col. 1, lines 6-11). In Hunt, “computer-coded software instructions [are] capable of being executed by a conventional computer microprocessor to perform information processing in **pre-existing** medical billing record information” (col. 2, lines 47-50). Hunt describes that “[t]he software contains a set of instructions for updating the matching medical billing record information to determine if the inpatient admission was ‘medically related’ to the outpatient service, and to indicate the **payees** and amounts of **refunds** generated for erroneously billed outpatient service” (col. 3, lines 14-19). Thus, Hunt determines if the outpatient service was medically related to inpatient service and therefore can indicate amounts of refunds for erroneously billed outpatient service.

Hunt also describes that “[e]ach input billing record is sorted and stored only once such that each separate database on the processed medical billing record storage medium 4 contains a continuously up-to-date record of all input medical billing records processed by the software” (col. 5, lines 22-26). Furthermore, Hunt describes that “[t]he determination of whether

reimbursement must be made for the distinguished outpatient claims will turn on whether the outpatient claim was 'medically related' to the inpatient stay ... This determination can be performed manually by claims processing personnel or automatically by the medical billing record processing software" (col. 7, lines 31-38). Therefore, Hunt merely determines whether the outpatient claim was medically related to the inpatient stay and automatically determines whether reimbursement must be made for the outpatient claim. The automatic determination is performed for **already created** (or pre-existing) separate inpatient and outpatient billing records. These outpatient and inpatient records are created independently of each other and Hunt merely determines whether the outpatient records are medically related to inpatient records, so that appropriate refunds can be provided for overpayments already sent and processed by the payer. However, nowhere in the cited passages or elsewhere in Hunt (and Boyer) is there any mention or suggestion of "employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" as recited in claim 23 of the present invention. Furthermore, Hunt (with Boyer) does not calculate "a reimbursement amount for said particular service and at least one other service provided to said specific patient based on said single reimbursement contract" as recited in claim 23 of the present invention. Hunt describes "[b]efore processing the medical billing record data to determine if a potential violation of the Medicare '72 hour billing rule' has occurred, the computer processor 1 reads all Medicare Remittance Advice (RA) billing record information from a pre-existing database contained on the input medical billing record storage medium 3 for conversion into a format suitable for use by the processing software" (col. 4, lines 51-57). Hunt also describes that "[t]he payment amount segment contains a separate hexadecimal coded character in its last byte for separate hexadecimal coded character in its last byte for determining whether a payment was received by the medical service provider or refunded by the service provider to a receiving party" (col. 5, lines 43-47). Thus, Hunt merely uses a conversion program to turn billing record data into a certain format. However, Hunt cannot calculate a reimbursement amount, as disclosed in the present claimed invention. Rather, Hunt can only determine whether a reimbursement should have been made for an overpayment and refunds the payment if necessary and uses a coded character to determine whether a payment was received or refunded by the medical service provider. Therefore, Hunt, when taken alone or in combination with Boyer, neither discloses nor suggests the features of the present claimed invention.

Even if the system of Boyer was combined with the system of Hunt, the combined

system would not make the present claimed invention unpatentable. The combined system would be a point of service environment, where a patient would come in to a hospital/clinic and have several services performed on a single day. Those services would be adjudicated and billed to the payer while the patient is still at the hospital/clinic. After the billing and payment, the records of patient visits would be stored on a database. The record would be compared to see if an inpatient admission was "medically related" to an outpatient service. Refunds may be generated for erroneously billed outpatient services. However, the combined system of Boyer and Hunt would neither disclose nor suggest "employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" as recited in claim 23 of the present invention. The combined system would be directed towards a point of service environment, and therefore, is not concerned with "automatically determining whether said particular service as well as said at least one other service provided to said specific patient qualify for grouped reimbursement under a single reimbursement contract" or "updating said reimbursement record to incorporate a record item representing said particular service in response to determination of said qualification; and calculating a reimbursement amount for said particular service and at least one other service provided to said specific patient based on said single reimbursement contract" as recited in claim 23 of the present invention. Unlike the present claimed invention, the combined system cannot search among separate encounters of services provided "on different occasions separated by a time period of up to at least a week" because the combined system only calculates and bills based upon events occurring on a single day (at the point of service). Even though the combined system may compare an outpatient visit to see if it is "medically related" to an inpatient visit, this comparison is performed after billing and payment is settled. The combined system is wholly unlike the present claimed invention which links "plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week," then automatically searches the "record repository for a record indicating at least one other service provided to said specific patient ... automatically determine[es] whether said particular service as well as said at least one other service provided to said specific patient qualify for grouped reimbursement under a single reimbursement contract" and calculates "a reimbursement amount for said particular service and at least one other service provided to said specific patient based on said single reimbursement contract" as recited in claim 23 of the present invention. Therefore, the combined system of Boyer and Hunt neither disclose nor suggest the features of the present claimed invention.

Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

Dependent claims 24, 26 and 27 are considered to be patentable based on their dependence on independent claim 23. Therefore, all arguments presented above with respect to claim 23 also apply to claims 24, 26 and 27. Thus, withdrawal of the rejection of claims 24, 26 and 27 under 35 U.S.C. 103(a) is further respectfully requested.

CLAIM 25

Claim 25 is dependent on claim 23 and is considered patentable for the reasons presented above with respect to claims 23. Claim 25 is also considered patentable because Boyer and Hunt neither disclose nor suggest that “said reimbursement record indicates services provided to said patient within a period encompassing at least one of, (a) a plurality of weeks and (b) a plurality of months, and wherein said updating step comprises updating said reimbursement record to incorporate said record item representing said particular service in response to determination said particular service was provided within said specific period” as recited in claim 25 of the present invention. As described above, Boyer is wholly unlike the present claimed, as Boyer first charges the payer and then sends a statement and the present claimed invention sends to the payer a bill for reimbursement. Thus, it is respectfully submitted that Boyer (with Hunt) is not concerned with a reimbursement record as in the present claimed invention. In addition, as described above, Boyer (with Hunt) is describes an adjudication engine that processes purchase transaction virtually in real-time or during a batch processing operation which takes place overnight or at most a day or two (*see* col. 6 lines 1-8). In contrast the present claimed invention understands that purchase transactions that take place over a longer period of time may be advantageously connected and should thus be grouped together for billing purposes. Thus, Boyer is fundamentally different from the present claimed invention, as Boyer is concerned with grouping transactions that take place at a particular point of service provider on a given day and the present claimed invention groups transactions that takes place at “different healthcare provider facilities on different occasions.” Therefore, it is respectfully submitted that Boyer and Hunt neither disclose nor suggest that “said reimbursement record indicates services provided to said patient within a period encompassing at least one of, (a) a plurality of weeks and (b) a plurality of months” as recited in claim 25 of the present claimed invention.

In the “Response to Arguments” section, it is argued that Boyer in figure 6 shows “reimbursement records ... for plurality of dates which are weeks apart (10/24/97 to 11/10/97.” Applicants respectfully submit that figure 6 shows point of service for individually performed

services only. Each separate claim total shown is for one date of independent services. For example, on 10/24/97, services provided were for an office visit and lab work. On 10/25/97, "out-patient services" were provided. On 11/8/97, services include office visit, lab work and x-ray. On 11/01/07 dental work was provided. On 11/10/97, an office visit was made for an ECG. These are all examples of individual patient visits, and nowhere in Boyer is there any suggestion the reimbursement record indicated service provided to a patient within a period encompassing at least a plurality of weeks or a plurality of months, as in the present claimed invention. Therefore, Boyer and Hunt neither disclose nor suggest that "said reimbursement record indicates services provided to said patient within a period encompassing at least one of, (a) a plurality of weeks and (b) a plurality of months" as recited in claim 25 of the present invention. Consequently, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

In view of the above remarks, Applicants respectfully submit that Boyer and Hunt do not make the present claimed invention unpatentable. Therefore, Applicants further respectfully submit that this rejection has been satisfied and should be withdrawn.

VIII CONCLUSION

Boyer, when taken alone or in combination with Hunt, neither discloses nor suggests "employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week" as recited in the present claimed invention. Additionally, Boyer, when taken alone or in combination with Hunt, neither discloses nor suggests "automatically grouping an item identifying said particular service together with an item identifying said at least one other service provided to said specific patient based on predetermined service record allocation rules ...calculating a reimbursement amount for said particular service and said at least one other service provided to said specific patient based on a reimbursement contract determining service grouping affects reimbursement amount" as recited in the present claimed invention. Independent claims 7, 9, 17 and 23 contain similar subject matter to claim 1 and are considered patentable for the same reasons as claim 1. Furthermore, as claims 2-6, 8, 10-16, 19-22 and 24-27 are dependent on claims 1, 7, 9, 17 and 23, respectively, these claims are also patentable over Boyer and Hunt, when taken alone or in combination.

Accordingly it is respectfully submitted that the rejection of claims 1-27 should be reversed.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Alexander J. Burke", is written over a horizontal line.

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APPENDIX 1 - APPEALED CLAIMS

1. (Previously Presented) A method for determining payment for provision of multiple different services based on predetermined reimbursement rules, comprising the steps of:

employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week;

receiving a first record identifying a particular service provided to a specific patient;

in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific patient;

automatically grouping an item identifying said particular service together with an item identifying said at least one other service provided to said specific patient based on predetermined service record allocation rules;

automatically creating a reimbursement record identifying grouped items; and

calculating a reimbursement amount for said particular service and said at least one other service provided to said specific patient based on a reimbursement contract determining service grouping affects reimbursement amount.

2. (Previously Presented) A method according to claim 1, including

automatically recalculating said reimbursement amount in response to receiving a second record identifying a further service provided to said specific patient wherein

said step of automatically creating a reimbursement record comprises creating a reimbursement record without manual intervention from received records identifying different types of services provided to said specific patient on separate occasions.

3. (Previously Presented) A method according to claim 2, wherein

said different treatment services comprise an outpatient service and an inpatient service.

4. (Previously Presented) A method according to claim 1, wherein

said record repository links a plurality of different encounters of a plurality of different patients and

in response to receiving said first record automatically searching said record repository for a record indicating at least one other service provided to said specific patient and a different patient and

automatically grouping an item identifying said particular service together with an item identifying said at least one other service in response to identifying linked records of said specific patient and said different patient and

said predetermined service record allocation rules comprise at least one of, (a) rules determining whether said provided service as well as said other service qualify for reimbursement under at least one reimbursement contract, and (b) rules in a reimbursement contract.

5. (Previously Presented) A method according to claim 1, wherein

said reimbursement contract comprises a healthcare policy covering said specific patient

automatically analyzing data representing said reimbursement contract to identify rules to be used in grouping services for reimbursement and automatically applying identified rules in grouping said item identifying said particular service together with said item identifying said at least one other service.

6. (Original) A method according to claim 1 implemented as a program of

instructions contained on a storage medium and executable by a machine.

7. (Previously Presented) A user interface supporting a method for determining payment for provision of multiple different services based on predetermined reimbursement rules, comprising the steps of:

- employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week;

- receiving a first record identifying a particular service provided to a specific patient;

- in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific patient;

- generating a first user selectable menu icon for initiating display of a reimbursement record, said reimbursement record showing

- data indicating automatically grouped items including an item identifying said particular service provided to said specific patient together with an item identifying said at least one other service provided to said specific patient based on predetermined service record allocation rules; and

- automatically calculating reimbursement amounts for said identified provided service and said other service provided to said specific patient based on a reimbursement contract.

8. (Previously Presented) A method according to claim 7, including the steps of

- automatically recalculating said reimbursement amount in response to receiving further records identifying corresponding further services provided to said specific patient, for individual records of said further records one record at a time, in response to automatically grouping items representing said further services with said particular service wherein

- generating a second user selectable menu icon for initiating display of a bill including said reimbursement amount for said provided service and said other service.

9. (Previously Presented) A method for use in billing for provision of multiple different services based on predetermined reimbursement rules, comprising the steps of:

employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week;

receiving a first record identifying a particular service provided to an entity;

automatically applying predetermined allocation rules for providing a reimbursement record indicating a group of services to be billed together on a single bill, said group of services having been provided to said entity, by, in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific entity and linked to said particular service;

updating said reimbursement record to incorporate a record item representing said at least one other service;

calculating a reimbursement amount for said particular service based on predetermined reimbursement rules; and

preparing a bill including said group of services comprising said particular service and said at least one other service for communication to a payer.

10. (Previously Presented) A method according to claim 9, including

automatically calculating a reimbursement amount for said bill, in response to receiving further records identifying corresponding further services provided to said specific entity for individual records of said further records, one record at a time, in response to automatically grouping items representing said further services with said particular service wherein

said predetermined allocation rules comprise rules for determining said particular service as well as said group of services qualify for reimbursement under at least one of (a) a single reimbursement contract and (b) a common set of reimbursement contracts.

11. (Original) A method according to claim 9, wherein
said predetermined allocation rules comprise rules in a reimbursement contract.

12. (Previously Presented) A method according to claim 9, wherein
said predetermined allocation rules identify a reimbursement record to incorporate
a record item representing said particular service based on the type of said particular service.

13. (Previously Presented) A method according to claim 12, wherein
said type of said particular service comprises at least one of, (a) an inpatient
service, (b) an outpatient service and (c) an emergency service.

14. (Previously Presented) A method according to claim 9, including the step of
identifying and prioritizing at least one of (a) reimbursement contracts and (b) policies,
comprising predetermined reimbursement rules and
selecting said predetermined reimbursement rules from said prioritized and
identified predetermined reimbursement rules for calculating reimbursement for said particular
service.

15. (Previously Presented) A method according to claim 9, wherein
said reimbursement record indicates said group of services are reimbursable
according to rules in a single reimbursement contract and including the step of
automatically determining whether said particular service is also reimbursable
according to rules in said single reimbursement contract.

16. (Original) A method according to claim 9, wherein
said specific entity comprises at least one of, (a) a patient, (b) a company, (c) an
individual person and (d) a group of people and including the step of
searching for other services also provided to said specific entity.

17. (Previously Presented) A method for determining payment for provision of multiple different services based on predetermined reimbursement rules, comprising the steps of:

employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week;

receiving a first record identifying a particular service provided to a specific patient;

in response to receiving said first record, automatically searching said record repository for a record of an additional service provided to said specific patient;

automatically determining whether said particular service as well as said additional service provided to said specific patient qualify for reimbursement under a single reimbursement contract;

automatically creating a record indicating said particular service and additional service provided to said specific patient qualify for reimbursement under a single reimbursement contract;

calculating a reimbursement amount for said particular service and additional service provided to said specific patient based on said single reimbursement contract and

automatically calculating a reimbursement amount, in response to receiving further records identifying corresponding further services provided to said specific patient for individual records of said further records, one record at a time, in response to automatically determining said further services are to be grouped with said particular service for reimbursement under said single reimbursement contract.

18. (Previously Presented) A method according to claim 17, including the step of preparing a bill including said reimbursement amount for said particular service and additional service for communication to a payer.

19. (Previously Presented) A method according to claim 17, wherein

said specific patient comprises at least one of, (a) a patient, (b) a company, (c) an individual person and (d) a group of people.

20. (Previously Presented) A method according to claim 17, including the steps of identifying and prioritizing at least one of, (a) reimbursement contracts and (b) policies associated with reimbursement contracts, applicable for reimbursing for said particular service and additional service and

selecting said single reimbursement contract from one of, (i) said prioritized reimbursement contracts and (ii) said reimbursement contracts associated with said prioritized policies.

21. (Previously Presented) A method according to claim 17, including the step of searching for other services also provided to said specific patient.

22. (Previously Presented) A method according to claim 17, including the step of sorting said particular service and additional service by date service is performed.

23. (Previously Presented) A method for determining payment for provision of multiple different services to a patient based on predetermined reimbursement rules, comprising the steps of:

- employing a record repository for linking a plurality of different encounters and associated service records of a patient involving receiving different treatment services at different healthcare provider facilities on different occasions separated by a time period of up to at least a week;

- receiving a first record identifying a particular service provided to a specific patient;

- in response to receiving said first record, automatically searching said record repository for a record indicating at least one other service provided to said specific patient;

- automatically determining whether said particular service as well as said at least one other service provided to said specific patient qualify for grouped reimbursement under a single reimbursement contract;

- updating said reimbursement record to incorporate a record item representing said particular service in response to determination of said qualification; and

- calculating a reimbursement amount for said particular service and at least one other service provided to said specific patient based on said single reimbursement contract.

24. (Previously Presented) A method according to claim 23, including the steps of

- automatically analyzing data representing a plurality of reimbursement contracts associated with said specific patient to identify rules to be used in grouping services for reimbursement and automatically applying identified rules in grouping said particular service and said at least one other service for reimbursement and

- preparing a bill including said reimbursement amount for said identified service and said at least one other service for communication to a payer.

25. (Previously Presented) A method according to claim 23, wherein
said reimbursement record indicates services provided to said patient within a period
encompassing at least one of, (a) a plurality of weeks and (b) a plurality of months, and wherein
said updating step comprises
updating said reimbursement record to incorporate said record item representing
said particular service in response to determination said particular service was provided within
said specific period.

26. (Previously Presented) A method according to claim 23, including the step of
automatically grouping said particular service provided to said specific patient with said
at least one other service provided to said specific patient based on two or more of, (a) date of
service, (b) patient identifier, (c) type of service, (d) type of patient and (e) patient medical
characteristics.

27. (Previously Presented) A method according to claim 23, including the step of
determining said particular service as well as said at least one other qualify for
reimbursement under at least one of (a) a single reimbursement contract and (b) a common set of
reimbursement contracts.

APPENDIX II - EVIDENCE

Applicants do not rely on any additional evidence other than the arguments submitted hereinabove.

APPENDIX III - RELATED PROCEEDINGS

Applicants respectfully submit that there are no proceedings related to this appeal in which any decisions were rendered.

APPENDIX IV - TABLE OF CASES**APPENDIX V - LIST OF REFERENCES**

<u>U.S. Patent No.</u>	<u>Issued Date</u>	<u>102(e) Date</u>	<u>Inventors</u>
6,208,973 B1	March 27, 2001		Boyer et al.
5,933,809	August 3, 1999		Hunt et al.

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